EXHIBIT E4

CHAPTER 94 REPORT FOR 2020
WEST GOSHEN SEWER AUTHORITY

Chapter 94
Municipal Wasteload Management
Annual Report

2020
West Goshen Sewer Authority
West Goshen Township Wastewater Treatment Plant
Chester County, PA

Prepared By:
Matthew Froncillo, Pretreatment Coordinator/Laboratory Supervisor
West Goshen WWTP
848 S. Concord Rd, West Chester PA 19382

Prepared For:
West Goshen Sewer Authority
West Goshen WWTP

Preparer

Matthew Froncillo
West Goshen WWTP

Responsible Official

Michael Moffa
West Goshen WWTP

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INTRODUCTION

This document was prepared pursuant to the Pennsylvania Chapter 94 Wasteload Management requirements for the West Goshen Sewer Authority. As suggested by the Pennsylvania Department of Environmental Protection (PADEP) this document was developed utilizing the PADEP Chapter 94 Template (PADEP Doc. ID 3800-FMBPNPSM0507) and the PADEP spreadsheet and graphs found at www.depweb.state.pa.us.chapter94.

The West Goshen Sewer Authority sewerage system provides wastewater service to all of West Goshen Township as well as to portions of four other municipalities. These Chester County municipalities include East Goshen Township, West Whiteland Township, Westtown Township, and Thornbury Township. Each municipality has signed a separate intermunicipal agreement with West Goshen Township and the West Goshen Sewer Authority. Municipalities have been allotted flow capacities as follows:

- East Goshen Township - 1,000,000 gpd
- West Whiteland Township - 820,000 gpd
- Westtown Township - 530,000 gpd
- Thornbury Township - 9,500 gpd

Information submitted by contributing municipalities as required to facilitate preparation of the annual report can be found in Attachment 9. West Goshen Township also has a total of three (3), single family homes connected to the Borough of West Chester's sanitary sewer system. West Goshen has no need to request any capacity from West Chester. These connections were made solely due to sewer line locations.

On December 10, 1998, Permit No. 1598405 was issued for the upgrade and expansion of the West Goshen Wastewater Treatment Plant. The project was completed in 2000 increasing the plant's annual average design capacity from 4.5 mgd to 6.0 mgd. The plant currently has a monthly average design capacity of 9.0 mgd and a peak flow capacity of 15.0 mgd, respectively. The organic load capacity of the treatment plant is approximately 17,514 pounds per day, assuming an influent concentration of 350 mg/L at the design average flow of 6.0 mgd.

During the reporting year the wastewater treatment facility, which operates under NPDES Permit No. PA0028584, used trickling filtration followed by activated sludge. The plant's processes included the following: flow equalization, fine screen and vortex grit headworks, primary clarification, roughing trickling filters, aeration tanks, secondary clarification, polishing clarification, and ultraviolet (UV) disinfection.

The sludge generated by the facility was anaerobically digested and dewatered by two, belt filter presses. During 2020 a total 479.1 dry metric tons of dewatered sludge was hauled to the Chester County Solid Waste Authority Landfill. Another 9.2 dry metric tons of liquid sludge was hauled to Pottstown WWTP for further treatment and disposal.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2020

☒ Permittee is owner and/or operator of a POTW or other sewage treatment facility
☐ Permittee is owner and/or operator of a collection system tributary to a POTW not owned/operated by permittee

GENERAL INFORMATION			
Permittee Name:	**West Goshen Sewer Authority**	Permit No.:	**PA0028584**
Mailing Address:	**848 S Concord Road**	Effective Date:	**09/01/2001**
City, State, Zip:	**West Chester, PA 19382**	Expiration Date:	**08/08/2006**
Contact Person:	**Michael Moffa**	Renewal Due Date:	
Title:	**Wastewater Superintendent**	Municipality:	**West Goshen Township**
Phone:	**610-696-0900**	County:	**Chester**
Email:	**mmoffa@westgoshen.org**	Consultant Name:	**Herbert Rowland & Grubic, Inc.**

CHAPTER 94 REPORT COMPONENTS

1. Attach to this report a line graph depicting the monthly average flows (expressed in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph must also include a line depicting the hydraulic design capacity per the WQM permit. (25 Pa. Code § 94.12(a)(1))

   Check the appropriate boxes:
   ☒ Line graph for flows attached (**Attachment 1**)
   ☒ DEP Chapter 94 Spreadsheet used (**Attachment 1**)
   ☐ Section 1 is not applicable (report is for a collection system).

2. Attach to this report a line graph depicting the monthly average organic loads (express as lbs BOD5/day) for each month for the past 5 years and projecting the organic loads for the next 5 years. The graph must also include a line depicting the organic design capacity of the treatment plant per the WQM permit. (25 Pa. Code § 94.12(a)(2))

   Check the appropriate boxes:
   ☒ Line graph for organic loads attached (**Attachment 1**)
   ☒ DEP Chapter 94 Spreadsheet used (**Attachment 1**)
   ☐ Section 2 is not applicable (report is for a collection system).

3. If the DEP Chapter 94 Spreadsheet was not used to determine projections, discuss the basis for the hydraulic and organic projections. In all cases, include a description of the time needed to expand the plant to meet the load projections, if necessary, and data used to support the projections should be included in an appendix to this report. (25 Pa. Code § 94.12(a)(3))

Hydraulic and Organic calcualtions indicate no current or projected overload.

4. Attach a map showing all sewer extensions constructed within the past calendar year, sewer extensions approved or exempted in the past year in accordance with Act 537 and Chapter 71, but not yet constructed, and all known proposed projects which require public sewers but are in the preliminary planning stages. The map must be accompanied by a list summarizing each extension or project and the population to be served by the extension or project. If a sewer extension approval or proposed project includes schedules describing how the project will be completed over time, the listing should include that information and the effect this build-out-rate will have on populations served. (25 Pa. Code § 94.12(a)(4))

Check the appropriate boxes:

☒ Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (**Attachment 2**)

☒ List summarizing each extension or project attached (**Attachment 2**)

☐ Schedules describing how each project will be completed over time and effects attached (**Attachment**)

Comments:

All information is included in Attachment 2 and in Attachment 9 for the contributing municipalities.

5. Discuss the permittee's program for sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities, personnel and equipment used, sampling frequency, quality assurance, data analyses, infiltration/inflow monitoring, and, where applicable, maintenance and control of combined sewer regulators during the past year. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(5))

All information is included in Attachment 3. Information from contributing municiplaities can be found in Attachment 9.

6. Discuss the condition of the sewer system including portions of the system where conveyance capacity is being exceeded or will be exceeded in the next 5 years and portions where rehabilitation or cleaning is needed or is underway to maintain the integrity of the system and prevent or eliminate bypassing, CSOs, SSOs, excessive infiltration and other system problems. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(6))

Check the appropriate boxes:

☒ System experienced capacity-related bypassing, SSOs or surcharging during the report year. On a separate sheet, list the date, location, and reason for each bypass, SSO or surcharge event.

☐ System did not experience capacity-related bypassing, SSOs or surcharging during the report year.

Comments:

There was one (1) extreme rainfall event that resulted in three (3) wet-weather SSO events. Otherwise, there were no known capacity issues in the West Goshen system during 2020. There were six (6) SSO events not related to capacity issues. Information on SSO events is included as Attachment 4. Attachment 9 contains any information related to capacity issues for contributing municipalities.

7. Attach a discussion on the condition of sewage pumping (pump) stations. Include a comparison of the maximum pumping rate with present maximum flows and the projected 2-year maximum flows for each station. (25 Pa. Code § 94.12(a)(7))

Check the appropriate boxes:

☐ The collection system does not contain pump stations

☒ The collection system does contain pump stations (Number – **10**)

☒ Discussion of condition of each pump station attached (**Attachment 5**)

8. If the sewage collection system receives industrial wastes (i.e., non-sanitary wastes), attach a report with the information listed below. (25 Pa. Code § 94.12(a)(8))

   a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.

   b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.

   c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.

Check the appropriate boxes:

☒ Industrial waste report as described in 8 a., b. and c. attached (**Attachment 6**)

☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

- ☐ This report demonstrates an existing hydraulic overload condition.
- ☐ This report demonstrates a projected hydraulic overload condition.
- ☐ This report demonstrates an existing organic overload condition.
- ☐ This report demonstrates a projected organic overload condition.

If one or more boxes above have been checked, attach a Corrective Action Plan (CAP) to reduce or eliminate present or projected overloaded conditions under §§ 94.21 and/or 94.22 (relating to existing overload and projected overload). (25 Pa. Code § 94.12(a)(9))

☐ Corrective Action Plan attached (**Attachment**)

10. Where required by the NPDES permit, attach a Sewage Sludge Management inventory that demonstrates a mass balance of solids coming in and leaving the facility over the previous calendar year.

☐ Sewage Sludge Management Inventory attached (**Attachment**)

11. For facilities with CSOs and where required by the NPDES permit, attach an Annual CSO Report (including satellite combined sewer systems).

☐ Annual CSO Report attached (**Attachment**)

12. For POTWs, attach a calibration report documenting that flow measuring, indicating and recording equipment has been calibrated annually. (25 Pa. Code § 94.13(b))

☒ Flow calibration report attached (**Attachment 8**)

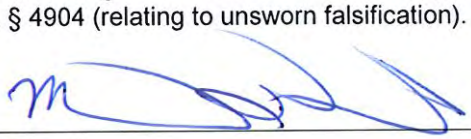
RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Michael Moffa	
Name of Responsible Official	Signature
610-696-0900	3/25/21
Telephone No.	Date

PREPARER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Matthew Froncillo	
Name of Preparer	Signature
610-696-0900	3/25/21
Telephone No.	Date

Attachment No. 1

Hydraulic and Organic Loading Data

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsh
Sewage Treatment Plar

Reporting Year: 2020

Facility Name: West Goshen Wastewater Treatment Plant

Permit No.: PA0028584

Persons/EDU: 3.5

Existing Hydraulic Design Capacity: 9 MGD
Upgrade Planned in Next 5 Years? NO Year:
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 17,514 lbs BOD5/day
Upgrade Planned in Next 5 Years? NO Year:
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2016	2017	2018	2019	2020
January	4.293	4.759	4.401	7.281	4.278
February	5.633	4.528	5.219	6.503	5.079
March	4.943	4.642	5.524	7.319	5.031
April	4.571	5.185	5.21	6.205	5.515
May	4.645	5.166	5.235	6.422	5.141
June	4.179	4.848	5.03	6.453	4.696
July	3.815	4.689	4.923	6.155	4.452
August	4.57	4.414	5.522	5.004	4.658
September	3.95	4.306	6.336	4.467	4.225
October	3.955	4.195	5.828	4.243	4.189
November	4.06	4.232	6.953	4.295	4.589
December	4.482	4.221	6.991	4.729	5.582
Annual Avg	4.425	4.599	5.598	5.756	4.786
Max 3-Mo Avg	5.049	5.066	6.591	7.075	5.229
Max : Avg Ratio	1.14	1.10	1.18	1.23	1.09
Existing EDUs	16,156.0	16,185.0	16,273.0	16,330.0	16,633.0
Flow/EDU (GPD)	273.9	284.2	344.0	352.5	287.7
Flow/Capita (GPD)	78.3	81.2	98.3	100.7	82.2
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2016	2017	2018	2019	2020
January	5,285	7,185	9,230	6,669	7,123
February	5,092	6,158	7,711	7,219	7,084
March	6,242	6,761	8,306	8,405	7,592
April	6,517	5,997	8,073	7,974	7,294
May	6,430	6,076	9,882	6,648	6,908
June	6,812	6,018	8,452	7,007	6,438
July	6,664	5,747	6,636	6,347	5,665
August	6,339	5,945	7,752	6,227	5,203
September	6,556	5,735	9,265	6,853	5,251
October	8,319	5,685	7,038	6,819	5,307
November	7,413	6,331	5,943	6,223	5,814
December	6,539	6,400	7,079	6,063	5,098
Annual Avg	6,517	6,170	7,947	6,871	6,231
Max Mo Avg	8,319	7,185	9,882	8,405	7,592
Max : Avg Ratio	1.28	1.16	1.24	1.22	1.22
Existing EDUs	16,156	16,185	16,273	16,330	16,633
Load/EDU	0.403	0.381	0.488	0.421	0.375
Load/Capita	0.115	0.109	0.140	0.120	0.107
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2021	2022	2023	2024	2025
New EDUs	156.0	143.0	153.0	158.0	133.0
New EDU Flow	0.1008	0.0356	0.0435	0.0328	0.041
Proj. Annual Avg	5.134	5.1696	5.2131	5.2459	5.2869
Proj. Max 3-Mo Avg	5.896	5.936	5.986	6.024	6.071
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2021	2022	2023	2024	2025
New EDUs	156	143	153	158	133
New EDU Load	64.534	59.156	63.293	65.361	55.019
Proj. Annual Avg	6,812	6,871	6,934	7,000	7,055
Proj. Max Avg	8,346	8,418	8,496	8,576	8,643
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2016	2017	2018	2019	2020
January	4.4	3.27	2.75	5.45	3.73
February	4.49	1.64	6.29	2.5	3.25
March	2.04	4.65	4.91	5.05	4.75
April	2.27	3.45	3.93	3.45	7.43
May	4.98	5.42	6.5	8.12	2.6
June	3.15	4.06	3.4	10.12	5.17
July	5.92	4.5	6.54	11.85	5.93
August	2.98	4.23	6.84	1.55	12.76
September	5.47	5.15	8.57	0.9	4.23
October	12.5	4.28	3.1	6.62	7.61
November	3.62	3.75	8.17	3.3	5.75
December	3.15	4.02	5.31	6.52	7.13

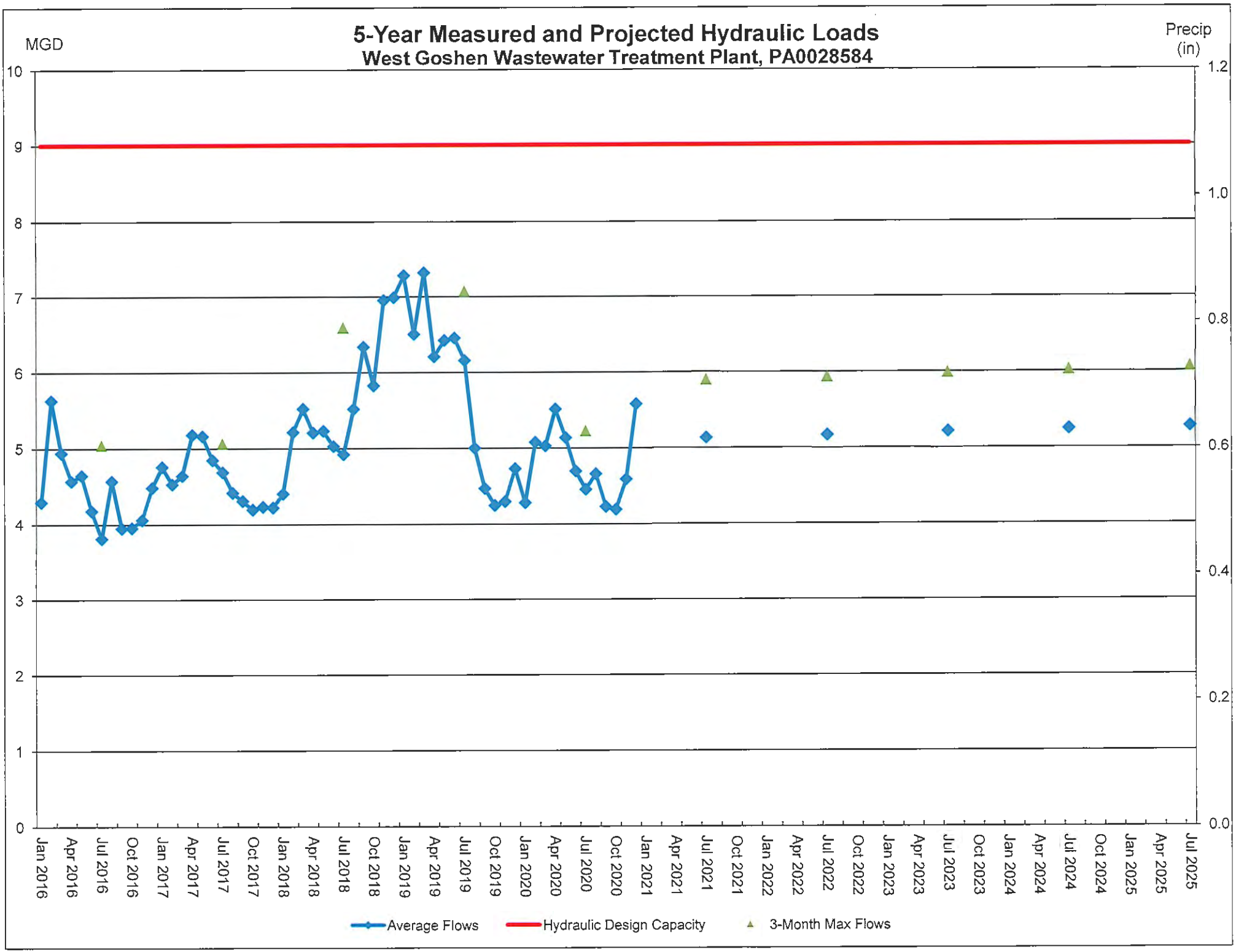
A. Hydraulic Loading Discussion and Supporting Data

The West Goshen Wastewater Treatment Plant has an annual average capacity of 6.0 mgd and a hydraulic design capacity (monthly max) of 9.0 mgd. The monthly average influent flow during 2020 was 4.831 mgd yielding a reserve capacity of 1.169 mgd. There has been no point in the past five years when the monthly average flow exceeded the plant's hydraulic design capacity of 9.0 mgd. The highest monthly average flow during 2020 was 5.582 mgd which corresponds to a reserve design capacity of 3.418 mgd. In addition, the 3-month max average flow in 2020 was 5.208 mgd which corresponds to 3.792 mgd of reserve capacity. Below is a chart listing the plant's 2020 daily influent flow values followed by a line graph, developed by PADEP, depicting the 5-year measured and projected hydraulic loads.

2020 Plant Influent Flow Data - mgd

	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	4.621	4.940	4.773	5.407	5.770	4.756	4.449	4.182	4.400	4.140	4.840	7.168
2	4.813	4.941	4.786	5.246	5.586	4.638	4.591	3.941	4.426	4.270	4.483	5.548
3	4.736	4.912	4.798	5.144	5.470	4.647	4.367	4.320	4.023	4.120	4.522	5.011
4	4.880	4.990	4.735	5.000	5.699	5.067	4.121	7.164	4.615	3.942	4.184	4.927
5	5.011	4.827	4.753	5.031	5.218	5.235	4.019	5.733	3.789	4.187	4.580	6.113
6	4.873	5.313	4.895	5.105	5.184	5.253	4.273	4.849	3.998	4.340	4.199	5.251
7	4.776	5.726	4.930	5.020	5.024	5.225	4.525	5.004	4.275	3.920	3.996	5.212
8	4.769	5.222	4.796	5.298	5.391	5.085	4.660	5.273	4.462	4.186	4.328	5.127
9	4.703	5.203	4.760	5.057	5.332	4.977	4.455	4.651	4.019	3.764	3.951	5.055
10	4.645	5.128	4.858	4.981	5.075	4.436	6.435	4.777	4.405	3.870	4.552	5.024
11	4.491	5.687	4.709	4.901	5.050	5.207	4.634	4.529	4.127	3.844	4.668	4.973
12	4.839	5.344	4.756	4.855	5.089	4.518	4.421	4.905	4.147	5.132	5.858	4.749
13	4.637	5.600	4.945	7.781	4.911	4.517	4.575	4.529	4.336	4.279	4.855	4.761
14	4.509	5.126	4.801	6.767	5.098	4.217	4.566	4.692	4.276	3.872	4.365	5.622
15	4.721	5.157	4.676	6.319	5.079	4.538	4.506	4.529	4.058	4.186	4.733	5.397
16	4.495	5.005	4.817	6.005	4.942	4.684	4.413	4.487	4.184	4.139	4.749	4.904
17	4.278	5.184	4.705	5.844	5.096	4.581	4.441	4.787	4.293	4.238	4.292	5.010
18	4.507	5.030	4.680	5.735	5.373	4.640	4.213	4.618	4.086	3.925	4.417	5.077
19	4.741	4.771	5.603	5.571	4.763	4.632	4.246	4.587	4.054	4.191	4.386	4.843
20	4.718	4.984	5.070	5.599	4.934	4.530	4.443	4.619	3.977	3.940	4.464	4.867
21	4.476	4.845	4.814	5.479	4.816	4.443	4.430	4.470	4.476	4.037	4.292	5.266
22	4.437	4.838	4.804	5.310	5.497	4.840	4.215	4.314	4.288	4.205	4.293	5.654
23	4.456	4.890	5.303	5.103	5.548	5.097	4.408	4.193	4.023	4.029	4.859	5.837
24	4.362	4.741	5.502	6.034	5.072	4.531	4.486	4.469	3.933	3.644	4.457	6.306
25	6.873	4.935	5.180	5.564	5.151	4.634	4.267	4.525	4.053	4.209	4.325	9.092
26	6.113	4.977	5.111	5.417	5.203	4.310	4.249	4.453	3.997	4.175	4.925	6.762
27	5.373	5.282	4.889	5.603	4.947	4.278	4.432	4.088	4.190	3.837	4.407	6.392
28	5.087	4.892	6.283	4.800	5.288	4.140	4.404	4.717	4.601	3.997	4.220	5.867
29	4.665	4.803	5.863	5.698	4.715	4.524	4.288	4.222	4.277	5.753	4.533	5.897
30	4.784		5.862	5.784	4.583	4.693	4.242	4.325	4.973	5.065	6.929	5.641
31	4.947		5.516		4.481		4.247	4.432		4.437		5.683
Max.	6.873	5.726	6.283	7.781	5.770	5.253	6.435	7.164	4.973	5.753	6.929	9.092
Min.	4.278	4.741	4.676	4.800	4.481	4.140	4.019	3.941	3.789	3.644	3.951	4.749
Avg.	4.817	5.079	5.031	5.515	5.141	4.696	4.452	4.658	4.225	4.189	4.589	5.582

Annual Avg. 4.831


5-Year Measured and Projected Hydraulic Loads
West Goshen Wastewater Treatment Plant, PA0028584
MGD
Precip (in)
10
9
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3
2
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0.4
0.2
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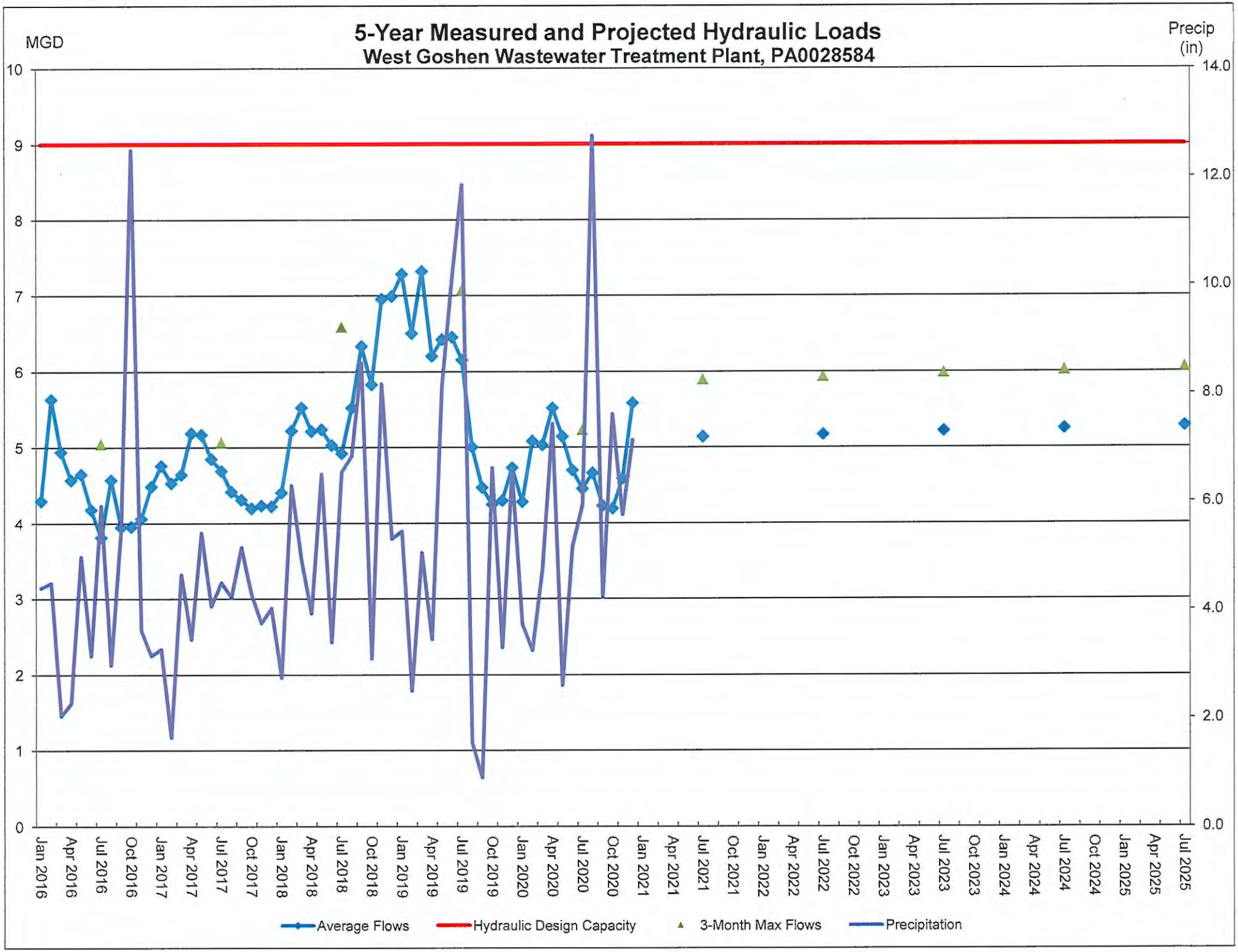
Jul 2025
Average Flows
Hydraulic Design Capacity
3-Month Max Flows


5-Year Measured and Projected Hydraulic Loads
West Goshen Wastewater Treatment Plant, PA0028584
MGD
Precip (in)
10
9
8
7
6
5
4
3
2
1
0
14.0
12.0
10.0
8.0
6.0
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Jan 2025
Apr 2025
Jul 2025
Average Flows
Hydraulic Design Capacity
3-Month Max Flows
Precipitation

B. Organic Loading Discussion and Supporting Data

Organic loading at the plant was measured approximately four times per week during 2020. Influent, 24-hour composite samples were taken using a Sigma all-weather refrigerated sampler. The facility has an organic load capacity of approximately 17,514 pounds per day. The average monthly organic load during 2020 was 6,231 lbs/day yielding a reserve capacity of 11,283 lbs/day. There has been no point in the past five years when the monthly average load exceeded the plant's load capacity. The highest monthly average load for 2020 was 7,592 lbs/day which corresponds to a reserve capacity of 9,922 lbs/day. The table below lists all 2020 influent BOD5 results (mg/L) along with the corresponding influent flow (mgd) and the calculated organic load (lbs/day). The following page includes a line graph, developed by PADEP, depicting the 5-year measured and projected organic loads. There are no current or projected overload conditions.

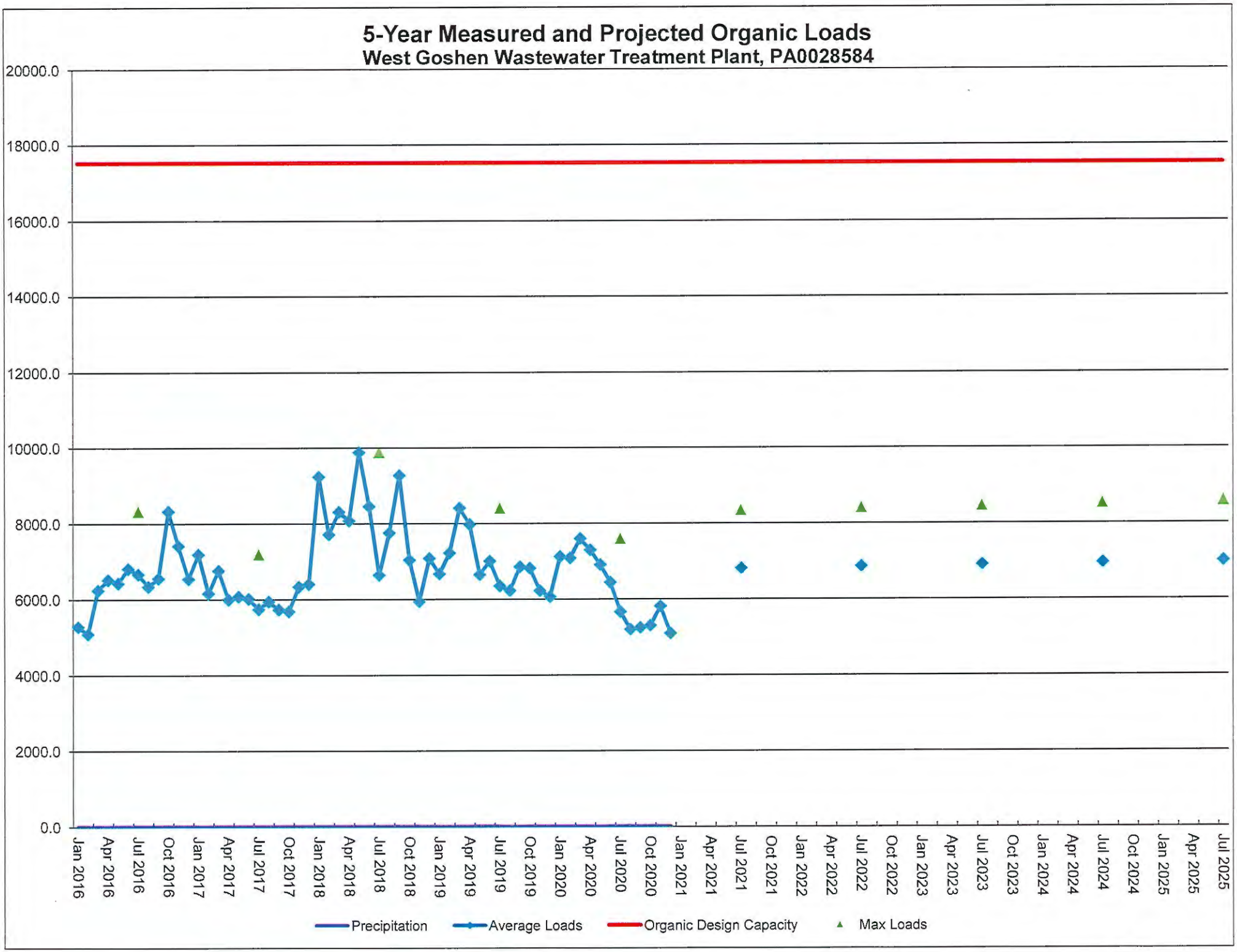
Note: West Goshen's influent sampling location is at the head of the plant before any treatment process. However, there are two return lines located prior to the sampling point. The most significant return line is the filtrate from the belt filter presses. The presses are operated an average of four days per week for approximately eight hours each day. The other return line is the settled sludge from the polishing clorifiers. This return is constant but has relatively little organic strength. At this time, there is no feasible way to move the sampling point to a location that would both yield a representative sample and exclude these return lines.

Organic Loading Sampling Data, BOD5

Date	INF mgd	BOD5 mg/L	lbs/day	Date	INF mgd	BOD5 mg/L	lbs/day	Date	INF mgd	BOD5 mg/L	lbs/day	Date	INF mgd	BOD5 mg/L	lbs/day	Date	INF mgd	BOD5 mg/L	lbs/day
1/2	4.813	149	5,981	3/16	4.817	162	6,508	5/26	5.203	162	7,030	8/10	4.777	100	3,984	10/20	3.940	158	5,192
1/6	4.875	264	10,734	3/17	4.705	230	9,025	5/27	4.947	188	7,757	8/11	4.529	80	3,022	10/21	4.037	142	4,781
1/7	4.776	211	8,405	3/18	4.880	206	8,040	5/28	5.288	133	5,886	8/12	4.905	124	5,073	10/22	4.205	140	4,910
1/8	4.769	220	8,750	3/19	5.603	181	8,458	6/1	4.756	140	5,553	8/13	4.529	134	5,061	10/26	4.175	154	5,362
1/9	4.703	248	9,727	3/23	5.303	197	8,713	6/2	4.838	171	6,614	8/17	4.787	110	4,392	10/27	3.837	145	4,640
1/13	4.637	139	5,375	3/24	5.020	202	8,457	6/3	4.647	161	6,240	8/18	4.616	110	4,237	10/28	3.997	124	4,134
1/14	4.509	220	8,273	3/25	5.180	185	7,992	6/4	5.067	148	6,254	8/19	4.587	112	4,285	10/29	5.753	190	9,116
1/15	4.721	216	8,505	3/26	5.111	230	9,804	6/8	5.085	143	6,064	8/20	4.819	199	7,866	11/2	4.483	134	5,010
1/16	4.495	160	5,998	3/30	5.862	106	5,182	6/9	4.977	175	7,264	8/24	4.469	217	8,088	11/3	4.522	136	5,129
1/20	4.718	209	8,224	3/31	5.516	199	9,155	6/10	4.436	205	7,584	8/25	4.525	104	3,925	11/4	4.184	132	4,606
1/21	4.476	155	5,786	4/1	5.407	195	8,793	6/11	5.207	185	8,034	8/26	4.453	140	5,199	11/5	4.580	152	5,806
1/22	4.437	203	7,512	4/2	5.246	233	10,194	6/15	4.538	72	2,725	8/27	4.088	112	3,819	11/9	3.951	119	3,921
1/23	4.456	186	6,912	4/6	5.105	152	6,472	6/16	4.664	157	6,133	8/31	4.432	131	4,842	11/10	4.552	194	7,365
1/27	5.373	109	4,884	4/7	5.020	143	5,987	6/17	4.581	137	5,234	9/1	4.400	159	5,835	11/11	4.668	143	5,567
1/28	5.087	153	6,491	4/8	5.298	122	5,391	6/18	4.640	196	7,585	9/2	4.428	139	5,131	11/12	5.858	122	5,960
1/29	4.665	115	4,474	4/9	5.057	142	5,989	6/22	4.840	160	6,458	9/3	4.023	124	4,160	11/16	4.749	134	5,307
1/30	4.784	127	5,067	4/13	7.781	194	12,589	6/23	5.097	133	5,854	9/7	4.275	125	4,457	11/17	4.292	150	5,369
2/3	4.912	166	6,800	4/14	6.787	128	7,224	6/24	4.531	330	12,470	9/8	4.462	159	5,917	11/18	4.417	144	5,305
2/4	4.990	152	6,326	4/15	6.319	135	7,115	6/29	4.524	119	4,490	9/9	4.019	164	5,497	11/19	4.386	157	5,743
2/5	4.827	139	5,596	4/16	6.005	148	7,412	6/30	4.693	130	5,088	9/10	4.405	127	4,666	11/23	4.859	127	5,147
2/6	5.313	149	6,602	4/20	5.599	163	7,611	7/1	4.162	128	4,464	9/14	4.276	85	3,031	11/24	4.457	98	3,643
2/10	5.128	158	6,757	4/21	5.479	172	7,860	7/2	3.941	148	4,799	9/15	4.058	134	4,535	11/25	4.325	220	7,936
2/11	5.687	178	8,442	4/22	5.310	156	6,909	7/8	4.849	155	6,268	9/16	4.184	110	3,836	11/26	4.925	185	7,599
2/12	5.344	205	9,137	4/23	5.103	183	7,788	7/7	5.004	132	5,509	9/17	4.293	166	5,943	11/30	6.929	183	9,419
2/13	5.600	147	6,865	4/27	5.603	86	4,112	7/8	5.273	132	5,805	9/21	4.476	311	11,610	12/1	7.168	100	5,978
2/17	5.184	133	5,750	4/28	4.800	148	5,925	7/9	4.651	124	4,810	9/22	4.288	152	5,436	12/2	5.548	82	3,794
2/18	5.030	203	8,516	4/29	5.698	170	8,079	7/13	4.529	153	5,779	9/23	4.023	156	5,234	12/3	5.011	112	4,681
2/19	4.771	268	10,664	4/30	5.784	121	5,837	7/14	4.692	165	6,457	9/24	3.933	170	5,576	12/7	5.212	82	3,564
2/20	4.984	152	6,318	5/4	5.699	163	7,747	7/15	4.529	154	5,817	9/28	4.601	108	4,144	12/8	5.127	124	5,302
2/24	4.741	150	5,931	5/5	5.218	169	7,355	7/16	4.487	76	2,844	9/29	4.277	105	3,745	12/9	5.055	140	5,902
2/25	4.935	151	6,215	5/6	5.184	175	7,566	7/17	4.787	138	5,509	9/30	4.973	139	5,765	12/10	5.024	97	4,064
2/26	4.977	145	6,019	5/7	5.024	195	8,171	7/20	4.619	179	6,696	10/1	4.140	141	4,868	12/14	5.622	191	8,956
2/27	5.282	168	7,401	5/11	5.050	116	4,886	7/21	4.470	109	4,063	10/5	4.187	140	4,889	12/15	5.397	133	5,986
3/2	4.788	189	6,746	5/12	5.089	142	8,027	7/22	4.314	218	7,843	10/6	4.340	127	4,597	12/16	4.904	96	3,928
3/3	4.798	131	5,242	5/13	4.911	168	6,881	7/23	4.193	197	6,889	10/7	3.920	124	4,054	12/17	5.010	118	4,930
3/4	4.735	182	7,187	5/14	5.098	166	7,058	7/27	4.088	145	4,944	10/8	4.186	282	9,147	12/21	5.286	97	4,260
3/5	4.753	181	7,175	5/18	5.373	152	6,811	7/28	4.717	153	6,019	10/12	5.132	127	5,436	12/22	5.654	101	4,763
3/9	4.760	141	5,597	5/19	4.763	151	5,998	7/29	4.222	206	7,254	10/13	4.279	134	4,782	12/23	5.837	91	4,430
3/10	4.858	164	6,645	5/20	4.934	209	8,600	8/3	4.320	158	5,693	10/14	3.672	134	4,327	12/24	6.306	100	5,259
3/11	4.709	243	9,543	5/21	4.816	160	6,426	8/4	7.164	161	10,814	10/15	4.186	130	4,538	12/28	5.867	109	5,333
3/12	4.756	181	7,179	5/25	5.151	148	6,358	8/6	4.849	78	3,154	10/19	4.191	156	5,453	12/29	5.897	98	4,820
																12/30	5.641	80	3,764
																12/31	5.683	151	7,157

Average Monthly BOD_5 Loading, lbs/day

January	7,123	April	7,294	July	5,665	October	5,307	Annual Average
February	7,084	May	6,908	August	5,203	November	5,814	6,231
March	7,592	June	6,438	September	5,251	December	5,098	


5-Year Measured and Projected Organic Loads
West Goshen Wastewater Treatment Plant, PA0028584
20000.0
18000.0
16000.0
14000.0
12000.0
10000.0
8000.0
6000.0
4000.0
2000.0
0.0
Jan 2016
Apr 2016
Jul 2016
Oct 2016
Jan 2017
Apr 2017
Jul 2017
Oct 2017
Jan 2018
Apr 2018
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Oct 2018
Jan 2019
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Oct 2024
Jan 2025
Apr 2025
Jul 2025
Precipitation
Average Loads
Organic Design Capacity
Max Loads

Attachment No. 2

Sewer Extensions Discussion and Data

Attachment 2 – Sewer Extensions

The development in West Goshen Township has picked up over previous years in part due to the Woodlands at Greystone Development. The table below lists the sewer extensions that have been constructed, approved, or proposed in West Goshen Township. The table also identifies the EDUs related to each project as well as the number of EDUs completed in 2020, completed to date, projected to be completed within two years, and the pump station associated with each EDU. In addition, a map showing the location of the extensions as well as the system's pump stations is included on the following page.

West Goshen Sewer Extensions

Development	Stage	Total EDU's	Total Completed 2020 EDUs	Total Completed To Date EDUs	2-Year Projected Additional EDUs	Associated Pump Station
Jerrehian (Woodlands at Greystone)	Approved	598	78	99	225	#16 Fern Hill / #12 Wash
Goshen Leisure - Hagerty	Approved	13	1	5	8	Main Plant
Glenn White – 825 Goshen Road	Approved	6	3	5	1	#11 Taylor Run / #12 Wash
Glenn White – 901 S. Five Points Rd	Approved	13	5	11	13	#13 Westtown Way
Goshen Walk – 325 N. Five Points Rd	Approved	12	0	0	12	#6 Ellis Lane
504 S. Concord Road	Proposed	7	0	0	7	Main Plant

Below is a table summarizing the EDU's connected during 2020 for all of the contributing municipalities as well as the anticipated connections for all contributing municipalities for the next five years. This information was used as the basis for the 2020 and 2021 through 2025 future connections on the PADEP spreadsheet. Specific information related to the contributing municipalities sewer extensions can be found in their individual reports in Attachment 9 of this report.

WEST GOSHEN WASTEWATER TREATMENT PLANT
CHAPTER 94 REPORT
EDU's CONNECTED OR ANTICIPATED BY MUNICIPALITY

MUNICIPALITY	CONNECTED	ANTICIPATED CONNECTIONS				
	2020	2021	2022	2023	2024	2025
WEST GOSHEN TOWNSHIP	294	150	120	115	115	110
EAST GOSHEN TOWNSHIP	0	2	5	5	5	5
WEST WHITELAND TOWNSHIP	5	2	8	23	38	18
WESTTOWN TOWNSHIP	4	2	10	10	0	0
THORNBURY TOWNSHIP	0	0	0	0	0	0
ANNUAL TOTAL	303	156	143	153	158	133

West Goshen Township
Sanitary Sewer System

Legend

- Sewer Main
- Pump Station/STP
- Parcels
- Developments

1. Jerrehian - Woodlands at Greystone
2. Glenn White-901 Little Shiloh Rd
3. Glenn White-Goshen Rd
4. Goshen Leisure - Hagerty
5. Goshen Walk - 325 N. Five Points
6. 504 S. Concord Road

Attachment No. 3

Program for Sewer System Monitoring, Maintenance, & Repair

Attachment 3 – Program for Sewer System Monitoring, Maintenance, and Repair

The operation and maintenance program conducted by the West Goshen Township treatment plant personnel has been increasingly effective in maintaining stability in the operation of the facility. A rather extensive supply of spare parts is stocked at the treatment plant, and a maintenance shop with selected tools and equipment has been set up to enable personnel to perform most repairs. Each day, all of the pump stations in the system and all of the treatment units at the treatment plant are inspected to ensure that they are in good working order. Equipment checks are performed on a routine basis and repairs are generally performed in-house when possible. Alarms capable of notifying personnel are placed throughout the treatment plant and at each of the pump stations. Notification events range from pump failures, power outages, and high/low level alarms.

The plant's laboratory is accredited with the PA Bureau of Laboratories for most of the pollutants requiring NPDES monitoring. Influent and Effluent samples are taken on a daily basis to ensure compliance with all limitations and removal efficiencies. Additionally, wastewater and sludge samples are taken at various points in the plant to determine the effectiveness of the treatment units.

It is recognized that portions of the West Goshen wastewater system are getting near the end of its useful life expectancy. In order to provide a proactive approach to identifying necessary improvements to the wastewater treatment plant, pumping stations, and collection system and allow for proper budgeting for implementation of any proposed improvements, the West Goshen Sewer Authority has developed a comprehensive 10-Year Capital Improvement Plan.

In 2020, construction began of a tertiary treatment system (COMAG - Ballasted Floeculation and Clarification) designed to reduce total phosphorus (TP) in the effluent to meet the requirements of a 2018 interim settlement agreement between the West Goshen Sewer Authority and EPA to further reduce effluent TP from a monthly average of 0.8 mg/L to a monthly average of 0.1 mg/L.

As part of the same contract the solids dewatering facility is being upgraded to include the following:

- Replacement of the belt filter presses with screw presses
- Rehabilitation of the digested sludge wet well
- Replacement of the dewatering system sludge feed pumps
- Replacement of the dewatered sludge conveyors
- Replacement of the polymer mixing and metering system
- Installation of Supervisory Control and Data Acquisition (SCADA) for the dewatering system
- New paint, doors, lighting, and HVAC system

During 2020, in addition to routine maintenance activities, plant staff completed the following:

- Replaced #1 intermediate lift pump
- Rebuilt #2 intermediate lift pump
- Rebuilt RAS pump
- Rebuilt Westtown Way Pumping Station #1 Pump
- Replaced trickling filter bearing
- Replaced 72 UV lamps, sleeves, and wire harnesses
- Repaired Westtown Way PS air relief valve

- Rebuilt waste sludge pump #2 motor, gearbox, and pump
- Drained, inspected two final clarifiers and epoxy coated the launders

Each municipality makes a concerted effort towards reducing infiltration and inflow (I&I) into its respective collection system and pledges to aggressively continue its I&I program. In 2020, West Goshen personnel cleaned 49,377 feet of sewer line and televised 41,820 feet. When problems were identified the appropriate actions were taken to de-root or repair the affected areas. The following details some of the major sewer line maintenance and repair activities of 2020:

1. West Goshen Staff Sewer Repairs:

    - Repaired hole in the bottom of manhole 507-8, 2-3 gpm during dry/wet weather.
    - Replaced and sealed manhole 854-B, 1-3 gpm during wet weather.
    - Repaired manhole on Airport Road, 4-6 gpm during wet weather.
    - Replaced approximately 53 frames and lids, 20-25 gpm during wet weather.
    - Replaced frame and manhole on Paoli Pike, 1-2 gpm during wet weather.
    - Repaired leaking manhole joint, 8-10 gpm during dry/wet weather.
    - Repaired and sealed manhole 507-3, 8-10 gpm during dry/wet weather.
    - Replaced five feet of 6-inch gravity sewer line in north hills, 2-4 gpm during dry/wet weather.

    Estimated infiltration eliminated - dry weather: 31,680 gpd
    - wet weather: 90,720 gpd

2. The West Goshen Sewer Authority contracted with RedZone Robotics to complete a Multi-Sensor Inspection (laser profiling, CCTV, and sonar) in all of the interceptors greater than 20-inches in diameter within the Authority's system. The condition of the interceptors was reviewed using the Multi-Sensor data and pipe sections were than assigned priority levels that reflect the deficiencies observed from the data. During 2020, the Sewer Authority contracted to complete the highest priority sewers (Priority A) from the results of the investigation. Although the project is not estimated to be completed until early Spring, 2021, the following work was completed in 2020:

    - Replacement of 468 L.F. of 24-inch diameter sewer main
    - Replacement of two (2) manholes
    - Cured-in-place pipe lining of approximately 719 L.F. of 30-inch diameter sewer main
    - Cured-in-place pipe lining of approximately 2,101 L.F. of 24-inch diameter sewer main

    It is anticipated that a Priority B Interceptor Rehabilitation Project will be completed during the years 2022-2023 and is currently in planning. It is estimated to consist of 8,150 L.F. of 20-inch, 24-inch, and 30-inch cured-in-place pipe (CIPP) lining and approximately 18 manhole rehabilitations.

3. Emergency Sewer Repairs in 2020:
    - Replacement of 30 L.F. of 8-inch sewer line on Spring Lane
    - Replacement of 10 L.F. of 8-inch sewer line on Sunset Hollow Road

    Total estimated infiltration eliminated in 2020 (all projects): - 46,080 gpd, dry weather
    - 126,720 gpd, wet weather

Attachment No. 4

Condition of the Sewer System

Attachment 4 - Condition of the Sewer System

The conveyance system of the West Goshen Sewer Authority consists of over two-hundred miles of a combination of force mains and gravity pipelines. All sewers are separate sanitary sewers ranging in size from 8-inch to 30-inch interceptors. The system is generally in good condition although some areas are in need of investigation for possible repair. Therefore, West Goshen has begun an aggressive program to ascertain the condition of its entire system and to repair/replace where necessary.

There is no area of the sewer system where the conveyance capacity is being exceeded, and no area is projected to exceed its capacity over the next five years. There were, however, six dry weather overflows and three wet weather overflows during 2020 (see attached SSO/Non-Compliance reports). As indicated, the three wet weather events occurred on the same day during an extraordinary heavy rain event. The following lists the events with a brief explanation of cause:

01/06/2020: The SSO was caused by a blockage due to an excessive amount of grease. The grease was jetted and removed from the line and manhole. Local residents in area were notified of proper oil and grease disposal.

02/10/2020: The SSO was caused by a partial grease blockage that was jetted to eliminate the SSO. The industries located on this line were given best management practices for fat-oil-grease (FOG) minimization.

03/28/2020: The SSO was caused by a break in a clay gravity sewer line that was located in low wet area. This line was excavated, repaired, and supported to avoid any future issues.

04/20/2020: The SSO was caused by a root blockage in a clay gravity sewer line. The plants utilized the jet truck in order to clear the roots and obstruction.

07/08/2020: The SSO was caused by a pvc gravity sewer line that had become pinched over time. This was caused by ground that had settled underneath of the line, which in turn allowed the pipe to settle and pull away from the manhole. This line was excavated and the compromised piece of pipe was replaced.

08/07/2020: An extraordinary amount of rainfall caused a discharge from a manhole located behind Taylor Run pumping station. The pumping station's design is being reviewed for potential upgrades in the future.

08/07/2020: An extraordinary amount of rainfall caused a discharge from a manhole located to the east of Westtown Way pumping station, this was also compounded by a variable frequency drive that overheated, which caused a pump failure during the height of the storm.

08/07/2020: An extraordinary amount of rainfall caused a discharge from two manholes located west of the main sewer plant. This extreme amount of rainfall caused the plant to experience a large inrush of flow ultimately causing the SSO. Beginning in 2016, West Goshen has embarked on an aggressive collection system rehabilitation program to eliminate inflow and infiltration.

12/04/2020: The SSO occurred due to a build-up of grease in the influent pipe of Ellis Lane pumping station. The jet truck was able to clear the blockage and restore the flow back to normal.

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [X] Dry Weather Overflow [ ] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date: January 6, 2020 Name: Michael Moffa Phone: 610-696-0900
2. Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3. Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Thursday, January 2, 2020 Location: 1201 E. Strasburg Road, West Chester, PA 19382
4. How was SSO discovered? By whom?	Call from resident
5. Start and end time of SSO (actual or estimate?)	SSO Start: 4:00 AM, estimate SSO End: 09:15 AM, actual
6. Date, time, and name of person who called PADEP originally to notify of SSO	Date: Thursday, January 2, 2020 Time: 10:18 AM & 11:16 AM Name: Mike Moffa, Wastewater Superintendent
7. Description and actual or estimated volume of SSO	Wastewater was seeping out of manhole. Estimated less than two-hundred fifty (250) gallons.
8. Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	Wastewater entered a swale/drainage ditch adjacent to manhole.
9. What caused the SSO? How was it stopped?	The blockage was removed by jetting the sewer line. It was discovered that the manhole was full of grease which caused the blockage. The grease was pumped out and taken to the treatment plant.
10. Describe extent of contamination and how it was cleaned up	The wastewater appeared to be contained in the swale/drainage ditch. The overflowed sewage was pumped into the tanker and taken to the treatment plant. No rags or debris was noticed.
11. What actions will be taken to prevent a re-occurrence? When?	This small gravity line will be monitored for grease build-up. Residents in the area will be informed of proper O&G disposal.
12. Other comments:	
13. Downstream notifications made: (All downstream users such as public water supplies must be notified)	

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [X] Dry Weather Overflow [ ] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date: February 10, 2020 Name: Michael Moffa Phone: 610-696-0900
2. Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3. Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Tuesday, February 4, 2020 Location: 1220 Wilson Drive, West Chester, PA 19380
4. How was SSO discovered? By whom?	Employee from 1220 Wilson Drive left a voicemail the evening of Feb. 4th reporting that sewage was coming out of their cleanout. The person did not follow the instructions for reporting sewer emergencies that was clearly stated on our answering message. Therefore, we did not get the message until the following morning.
5. Start and end time of SSO (actual or estimate?)	SSO Start: 5:00 PM, 2/4/2020 - estimate SSO End: 8:30 AM, 2/5/2020 - actual
6. Date, time, and name of person who called PADEP originally to notify of SSO	Date: Wednesday, February 5, 2020 Time: 9:13am - 10:35am *Made several attempts to contact someone. Called 484-250-5970 and 484-250-5900. Finally left voicemail at 10:35am after being forwarded to a number I had just dialed.* Name: Mike Moffa, Wastewater Superintendent
7. Description and actual or estimated volume of SSO	Wastewater overflowed from lateral cleanout. Estimated 2,500 gallons.
8. Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	Wastewater entered a small swale leading to storm sewer.
9. What caused the SSO? How was it stopped?	Grease buildup within the sewer pipe caused the blockage. Although it was not a complete blockage enough was restricting flow to cause it to overflow. Staff used jet machine to clear the blockage.
10. Describe extent of contamination and how it was cleaned up	Much of the wastewater was contained in the swale and nearby storm ditch. The area was raked and remaining wastewater was pumped into tanker. Lime was spread over the area.
11. What actions will be taken to prevent a re-occurrence? When?	Upstream contributers will be sent a notice of the event along with suggested Best Management Practices for FOG.
12. Other comments:	
13. Downstream notifications made: (All downstream users such as public water supplies must be notified)	

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [X] Dry Weather Overflow [ ] Wet Weather Overflow

1.	Date, Name, Phone # of person completing this report	Date: March 28, 2020 Name: Michael Moffa Phone: 610-696-0900
2.	Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
	Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3.	Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Monday, March 23, 2020 Location: 6 Spring Lane, West Chester, PA 19380
4.	How was SSO discovered? By whom?	Resident hiking noticed sewage coming out of a manhole. Did not notify Twp. until the following morning.
5.	Start and end time of SSO (actual or estimate?)	SSO Start: 3/23/2020 - estimate SSO End: 3/23/2020 - actual
6.	Date, time, and name of person who called PADEP originally to notify of SSO	Date: Tuesday, March 24, 2020 Time: 12:45 pm *Provided information to answering service (484-250-5900)* Name: Mike Moffa, Wastewater Superintendent
7.	Description and actual or estimated volume of SSO	Wastewater overflowed from a raised manhole located in wooded area. It appeared as though 200 gallons or so overflowed (estimate). Overflow had stopped before staff arrived.
8.	Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	Based on visual observation upon arrival it appeared as though the wastewater stayed near the manhole area. As stated, there was no overflow when staff arrived.
9.	What caused the SSO? How was it stopped?	A brake in the clay pipe sewer line caused the blockage. The line is basically a lateral to a segment of a small shopping center. The brake was repaired by 5:00 pm, 3/24/20.
10.	Describe extent of contamination and how it was cleaned up	Minimal contamination near manhole observed. Spread lime over the area.
11.	What actions will be taken to prevent a re-occurrence? When?	We will continue to monitor our sewers for issues needing attention. This particular line will be assessed for lining or other repair/upgrades.
12.	Other comments:	
13.	Downstream notifications made: (All downstream users such as public water supplies must be notified)	na

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [X] Dry Weather Overflow [ ] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date: April 20, 2020 Name: Michael Moffa Phone: 610-696-0900
2. Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3. Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Saturday, April 18, 2020 Location: 118 Penn Lane
4. How was SSO discovered? By whom?	Resident called police about water seeping out from around a manhole cover.
5. Start and end time of SSO (actual or estimate?)	SSO Start: 4/18/2020, 4:00 pm - estimate SSO End: 4/18/2020, 7:45 pm - estimate
6. Date, time, and name of person who called PADEP originally to notify of SSO	Date: Saturday, April 18, 2020 Time: 8:12 pm Name: *Mike Moffa, Wastewater Superintendent*
7. Description and actual or estimated volume of SSO	Wastewater overflowed from a dead-end manhole located in the street near 118 Penn Lane. It appeared as though 10 gallons overflowed (estimate).
8. Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	Wastewater remained in street and dried in place. No debris was noticed.
9. What caused the SSO? How was it stopped?	It appeared as though roots was the cause of the blockage. Staff utilized a jet truck with route attachment.
10. Describe extent of contamination and how it was cleaned up	Minimal contamination near manhole observed. Wastewater dried in place.
11. What actions will be taken to prevent a re-occurrence? When?	We will continue to monitor our sewers for issues needing attention. We will televise this segment and take the appropriate action based on the findings.
12. Other comments:	
13. Downstream notifications made: (All downstream users such as public water supplies must be notified)	na

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [X] Dry Weather Overflow [ ] Wet Weather Overflow

1.	Date, Name, Phone # of person completing this report	Date: July 8, 2020 Name: Matthew Froncillo, Pretreatment Coordinator Phone: 610-696-0900
2.	Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
	Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3.	Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Tuesday, July 7, 2020 Location: Manhole 1411 located off of Sunset Hollow Road in the northwest portion of the township.
4.	How was SSO discovered? By whom?	A township resident notified West Goshen Township.
5.	Start and end time of SSO (actual or estimate?)	SSO Start: Unknown SSO End: 4:00 pm (Actual)
6.	Date, time, and name of person who called PADEP originally to notify of SSO	Date: Tuesday, July 7, 2020 Time: 4:00:00 PM (left a voicemail at 484-250-5970) Name: Matthew Froncillo, Pretreatment Coordinator
7.	Description and actual or estimated volume of SSO	The estimated volume of the SSO was approximately 25 gallons.
8.	Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	The wastewater saturated the ground around the manhole with no visible ponding.
9.	What caused the SSO? How was it stopped?	The SSO was caused by a pvc gravity sewer line that was pinched due to the steep grade into the manhole. The ground underneath of the pipe had settled over time, which caused the pipe to sag and pull away from the manhole. The SSO was stopped by replacing the compromised section of pipe.
10.	Describe extent of contamination and how it was cleaned up	There was minimal contamination and lime was applied to the any affected soil.
11.	What actions will be taken to prevent a re-occurrence? When?	The damaged section of pipe was replaced and repaired to avoid any further issues. The sewer main will be CCTV'd and monitored to help prevent future issues.
12.	Other comments:	
13.	Downstream notifications made: (All downstream users such as public water supplies must be notified)	

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [ ] Dry Weather Overflow [X] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date: August 7, 2020 Name: Michael Moffa, Wastewater Superintendent Phone: 610-696-0900
2. Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3. Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Tuesday, August 4, 2020 Location: Taylor Run Pumping Station, 546 Taylors Mill Road, West Chester, PA 19382 MH-901
4. How was SSO discovered? By whom?	Township Personnel
5. Start and end time of SSO (actual or estimate?)	SSO Start: 11:30 AM (Estimate) SSO End: 12:30 PM (Estimate)
6. Date, time, and name of person who called PADEP originally to notify of SSO	Date: Tuesday, August 4, 2020 Time: 5:31 PM Name: Michael Moffa, Wastewater Superintendent
7. Description and actual or estimated volume of SSO	The estimated volume of the SSO was approximately 6,000 gallons.
8. Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	The wastewater entered a small tributary located behind the station and then entered Taylor Run.
9. What caused the SSO? How was it stopped?	The SSO was caused by extraordinarily heavy rainfall during Tropical Storm Isaiah.
10. Describe extent of contamination and how it was cleaned up	No contamination was observed due to heavy rainfall and extreme stormwater runoff.
11. What actions will be taken to prevent a re-occurrence? When?	Beginning in 2016, West Goshen embarked upon an aggressive collection system rehabilitation program. Each year, select areas of concern are upgraded or repaired. West Goshen will continue in this endeavor to eliminate infiltration and inflow.
12. Other comments:	
13. Downstream notifications made: (All downstream users such as public water supplies must be notified)	Craig Lutz of Aqua America was notified of the SSO via telephone.

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [ ] Dry Weather Overflow [X] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date: August 7, 2020 Name: Michael Moffa, Wastewater Superintendent Phone: 610-696-0900
2. Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382
Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3. Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Tuesday, August 4, 2020 Location: Westtown Way Pumping Station, 837 Falcon Ln West Chester, PA 19382 Manhole 1302-1
4. How was SSO discovered? By whom?	Township Personnel
5. Start and end time of SSO (actual or estimate?)	SSO Start: 12:00 PM (Estimate) SSO End: 3:00 PM (Estimate)
6. Date, time, and name of person who called PADEP originally to notify of SSO	Date: Tuesday, August 4, 2020 Time: 4:20 PM Name: Michael Moffa, Wastewater Superintendent
7. Description and actual or estimated volume of SSO	The estimated volume of the SSO was approximately 18,000 gallons.
8. Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	The wastewater was discharged into the Chester Creek Branch next to the manhole.
9. What caused the SSO? How was it stopped?	The SSO was caused by extraordinarily heavy rainfall during Tropical Storm Isaiah. The duration of the overflow may have been extended by an hour or so due to a variable frequency drive (VFD) overtemp on one of the pumps. Personel was able to reinstall a pump that was down for repair under emergency conditions to compensate for the VFD malfunction.
10. Describe extent of contamination and how it was cleaned up	No contamination was observed due to heavy rainfall and extreme stormwater runoff. Much of the time the creek was flooded above its banks and over the manhole.
11. What actions will be taken to prevent a re-occurrence? When?	Beginning in 2016, West Goshen embarked upon an aggressive collection system rehabilitation program. Each year, select areas of concern are upgraded or repaired. West Goshen will continue in this endeavor to eliminate infiltration and inflow. In addition, Design and permitting has begun for a complete overhaul of the station (to include new pumps and controls) which will increase its overall reliability and efficiency.
12. Other comments:	
13. Downstream notifications made: (All downstream users such as public water supplies must be notified)	

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [ ] Dry Weather Overflow [X] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date: August 7, 2020 Name: Michael Moffa, Wastewater Superintendent Phone: 610-696-0900
2. Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3. Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Tuesday, August 4, 2020 Location: West Goshen Wastewater Treatment Plant, 848 S. Concord Road, West Chester, PA 19382. Manhole 803
4. How was SSO discovered? By whom?	Township Personnel
5. Start and end time of SSO (actual or estimate?)	SSO Start: 1:00 PM (Estimate) SSO End: 2:15 PM (Actual)
6. Date, time, and name of person who called PADEP originally to notify of SSO	Date: Tuesday, August 4, 2020 Time: 4:16 PM Name: Michael Moffa, Wastewater Superintendent
7. Description and actual or estimated volume of SSO	The estimated volume of the SSO was approximately 20,000 gallons.
8. Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	The wastewater entered Goose Creek located behind the main plant.
9. What caused the SSO? How was it stopped?	The SSO was caused by extraordinarily heavy rainfall during Tropical Storm Isaiah.
10. Describe extent of contamination and how it was cleaned up	No contamination was observed due to heavy rainfall and extreme stormwater runoff. Most of the time the stream was flooded above its banks and over the manhole.
11. What actions will be taken to prevent a re-occurrence? When?	Beginning in 2016, West Goshen embarked upon an aggressive collection system rehabilitation program. Each year, select areas of concern are upgraded or repaired. West Goshen will continue in this endeavor to eliminate infiltration and inflow.
12. Other comments:	
13. Downstream notifications made: (All downstream users such as public water supplies must be notified)	Craig Lutz of Aqua America was notified of the SSO via telephone.

Sanitary Sewer Overflow (SSO) Report to PADEP - Water Management **DEP fax: 484-250-5971**

Please check the appropriate box: [X] Dry Weather Overflow [ ] Wet Weather Overflow

1.	Date, Name, Phone # of person completing this report	Date: December 4, 2020 Name: Michael Moffa Phone: 610-696-0900
2.	Organization Name and Address	West Goshen Township Wastewater Treatment Plant 848 S. Concord Road, West Chester, PA 19382 Chester County
	Sewer system owner and permit number	West Goshen Sewer Authority NPDES No. PA0028584
3.	Date found and specific location of SSO. Including Municipality/County (if different from #2)	Date: Monday, November 30, 2020 Location: 502 Ellis Lane
4.	How was SSO discovered? By whom?	Township employee noticed a manhole overflowing while driving by. Station had been checked around 10am. There was no noticeable issue at the station at that time.
5.	Start and end time of SSO (actual or estimate?)	SSO Start: 11/30/2020, 11:30:00 am - estimate SSO End: 11/30/2020,12:45 pm - actual
6.	Date, time, and name of person who called PADEP originally to notify of SSO	Date: Monday, November 30, 2020 Time: 2:09 pm Name: *Mike Moffa, Wastewater Superintendent*
7.	Description and actual or estimated volume of SSO	Wastewater overflowed from a manhole located approximately 40 feet from the pump station. While a smaller amont of wastewater was able to reach the wet well, an estimated 17,500 gallons overflowed.
8.	Where, precisely, did SSO go? (land, roadway, basement, swale, storm sewer, creek, etc.) Please include creek name or street location.	Wastewater ran across grassy area. Some of it entered into a small creek and was washed away by the heavy rain.
9.	What caused the SSO? How was it stopped?	Grease clogged the pump station's influent line approximately 10 feet from the station. Staff utilized a jet truck to clear the blockage.
10.	Describe extent of contamination and how it was cleaned up	Any solids deposited on the grassy area were removed by staff members. The remaining water was washed away as the blockage occurred during a heavy rain event. Lime was placed on the grassy area.
11.	What actions will be taken to prevent a re-occurrence? When?	We will continue to monitor our sewers for issues needing attention and will provide public outreach regarding proper O&G disposal.
12.	Other comments:	
13.	Downstream notifications made: (All downstream users such as public water supplies must be notified)	

Attachment No. 5

Sewage Pumping Stations

Attachment 5 - Sewage Pumping Stations

Presently, there are ten pump stations servicing the West Goshen Township service area. Each station is equipped with its own emergency generator. All of the pumping stations are inspected on a daily basis to ensure they are in good working order. Equipment checks are performed on routine basis and repairs are generally performed in-house when possible. Alarms capable of notifying wastewater personnel are placed at each of the pumping stations. Alarm notification events range from pump failures, power outages, and high/low alarms.

Table 9 lists all of the pump stations in West Goshen along with their respective maximum daily pump rates. The maximum daily pump rate is the hydraulic design capacity of the station excluding the capacity of any one pump. Therefore, where a station has two pumps the maximum daily pump rate was calculated using only one pump. Similarly, where a station has three pumps, the maximum daily pump rate was calculated using only two pumps. Flows for the pump stations (annual average and daily maximum) are listed in the table as well.

For each station, the projected 2-year average daily flow was estimated by multiplying the number of projected 2-year additional EDUs by the 5-year flow/EDU ratio. This figure was then added to the station's 2020 annual average daily flow.

The projected 2-year max daily flow for each station was calculated by multiplying the ratio of its 2020 max daily flow to its 2020 annual average daily flow by the projected 2-year average daily flow. There are no pump stations projected to exceed the maximum pump rate over the next two years. It must be noted that significantly higher than normal rainfall events during 2020 has made the projected pumping station flows appear higher than normally expected.

Table 9. - Pump Stations

No.	Station Name	No. of Pumps	Capacity	Present Flows		Projected Flows		Percent of Max Daily Pump Rate at Projected 2-Year Daily Max Flow
			Max Daily Pump Rate[1] (gpd)	2020 Annual Average Daily Flow (gpd)	2020 Max Daily Flow (gpd)	Projected 2-Year Average Daily Flow (gpd)	Projected 2-Year Max Daily Flow (gpd)	
# 1	Montgomery Avenue	3	252,000	57,917	203,000	57,917	203,000	81%
# 2	Trinity Drive	2	216,000	52,250	85,000	52,250	85,000	39%
# 3	Spruce Avenue	2	1,022,400	266,917	451,000	266,917	451,000	44%
# 6	Ellis Lane	2	943,200	404,667	857,000	404,667	857,000	91%
# 10	Woodcrest	2	144,000	17,000	20,000	17,000	20,000	14%
# 11	Taylor Run	3	2,880,000	864,333	1,697,000	905,608	1,778,038	62%
# 12	Washington Street	3	5,472,000	1,128,167	1,836,000	1,211,517	1,971,645	36%
# 13	Westtown Way	3	6,192,000	1,340,083	2,681,000	1,352,733	2,706,308	44%
# 16	Fern Hill	3	3,024,000	522,750	1,018,000	564,825	1,099,937	36%
# 17	Hamilton Woods	2	345,600	47,667	82,000	47,667	82,000	24%

[1] Max daily pump rate assumes 1 pump is out of service.

The West Goshen Sewer Authority Capital Improvement Plan establishes upgrades for each of the remaining stations over a ten-year period. The Trinity Drive Pump Station and associated force main replacement project was contracted in 2020 and is scheduled to be completed by early April, 2021. Rehabilitation projects for the Taylor Run (#11), Westtown Way (#13), and the Fern Hill pump stations are currently undergoing engineering for possible bidding in 2021.

Attachment No. 6

Industrial Wastes

Attachment 6 – Industrial Wastes

Currently, industrial users (IUs) contribute approximately 1.5% of the POTW's influent flow. The Township has issued permits to its IUs and monitors them on a regular basis. Each permitted IU is inspected annually to verify compliance with the Township's rules and regulations. In addition, each permitted IU conducts self-monitoring as required by its industrial waste permit. The treatment plant experienced no known or suspected pass-through or interference from industrial discharges in 2020.

The operating pretreatment program became EPA approved on April 13, 2006. A copy of the Township's pretreatment ordinance was included with the 2008 Municipal Wasteload Management Report along with a copy of the pretreatment streamlining amendment to the ordinance. Each contributing municipality has adopted a pretreatment ordinance identical in substantive content to that of West Goshen's. Further information regarding West Goshen's 2020 pretreatment program can be found on the following pages. Only those sections applicable to PA Chapter 94 requirements have been included.

Part A - Pretreatment Performance Summary

I. General Information

Control Authority Name: WEST GOSHEN TOWNSHIP
Address: 848 S. CONCORD ROAD
City: WEST CHESTER State: PA Zip+4: 19382 - 5536
Contact Person: Matthew Froncillo
Contact Title: Pretreatment Coordinator/ Lab Supervisor
Contact Telephone Number: 610-696-0900
E-Mail Address: mfroncillo@westgoshen.org
NPDES No: PA0028584
Permit Issuance Date: AUG. 08, 2001 Expiration Date: AUG. 08, 2006[a]
Reporting Period: JAN. 01, 2020 - DEC. 31, 2020

Total Categorical IUs (CIUs)	3
Total "Middle Tier" CIUs (MTCIUs)	N/A
Total Nonsignificant CIUs (NSCIUs)	N/A
Total Significant Noncategorical IUs (SNIUs)	0

II. Compliance Monitoring Program

1.	No. of SIUs with current Control Documents	3
2.	No. of SIU Facilities Inspected	3
3.	No. of SIU Facilities Sampled	3
4.	No. of SIUs Submitting Self-Monitoring Reports	3

III. Significant Industrial User Compliance

1.	No. of SIUs Violating a Compliance Schedule/No. On a Schedule	0 / 0
2.	No. of SIUs in SNC for the July to December Period	0
3.	No. of SIUs in SNC at Any Time During Calendar Year	0
4.	No. of SIUs in SNC that were also in SNC during the previous Calendar Year	0
5.	No. of NSCIUs that violated any standards or requirements	N/A

IV. Enforcement Actions

1.	Notices/Letters of Violation Issued to SIUs	1
2.	Enforceable Compliance Schedules Issued to SIUs	0
3.	Civil/Criminal Suits Filed	0
4.	No. of SIUs from which Penalties have been collected	0
5.	Other Actions (sewer bans, etc.)	0

I certify that the information contained in this report and attachments is complete and accurate to the best of my knowledge.

Matthew Froncillo	Pretreatment Coordinator / Lab Supervisor
Name of Authorized Representative	Title (Print)
	3/23/21
Signature	Date

[a] Renewal application submitted to DEP on February 2, 2006.

Attachment to: Part A - Pretreatment Performance Summary
Section I - General Information

1. Categorical IUs:

Name	Address	Category
Lasko Products, Inc.	820 Lincoln Avenue West Chester, PA 19380	Metal Finishing - Existing Source -
Jabil, Inc.	1303 Goshen Parkway West Chester, PA 19380	Metal Finishing - New Source -
Transwall Office Systems, Inc.	1220 Wilson Drive West Chester, PA 19380	Metal Finishing - New Source -

2. Non-Categorical SIUs:

3. Changes Since Last Submittal:

Name	Address	Category

Synthes, USA was aquired by Jabil, Inc. in August 2019. Jabil now operates the manufacturing out of the same location, while Synthes still owns the building.

Attachment to: Part A - Pretreatment Performance Summary
Section II - Compliance Monitoring Program

Name	Permit Issuance / Expiration	Township Inspection	Township Sample Events	Self-Mon. Events Conducted / Required
Lasko Products, Inc.	03/06/2019 - 03/05/2022	1	1	4 / 4
Jabil, Inc.	08/05/2019 - 08/04/2022	1	1	4 / 4
Transwall Office Systems, Inc.	08/01/2019 - 07/31/2022	1	1	2 / 2

Comment:

Attachment to: Part A - Pretreatment Performance Summary
Section III - Significant Industrial User Compliance

SIUs in SNC during reporting period

Name	Reason for SNC	Pollutant	SNC Period	Actions Planned or Taken	Status as of Report End Date
NONE					

Comment:

List of facilities that were in SNC for this year and were also in SNC for last reporting year:

NONE

Attachment to: Part A - Pretreatment Performance Summary
Section IV - Enforcement Actions

Name	NOVs Issued	Admin. Orders	Penalties: Assessed/Collected
Jabil, Inc.	1	-	- / -
Lasko Products, Inc.	0	-	- / -
Transwall Office Systems, Inc.	0	-	- / -

Attachment No. 7

Corrective Action Plan

Attachment 7 – Corrective Action Plan

The 1997 update to the Act 537 Plan addressed the need to increase the capacity at the plant by 1.5 mgd. As a result, on December 10, 1998, Permit No. 1598405 was issued for the upgrade and expansion of the West Goshen Wastewater Treatment Plant. The upgrade was completed in 2000 increasing the plant's annual average design capacity from 4.5 mgd to 6.0 mgd. Currently, there is no overload, existing or projected, at the West Goshen Wastewater Treatment Plant.

Attachment No. 8

Flow Meter Calibration Reports

ALLIED CONTROL SERVICES, INC.
P.O. Box 234
611 Garfield Avenue
West Point, PA 19486
(215) 699-2855

Certificate Of Calibration

Certificate #	2-040620	**Meter information**	Toshiba
Customer	West Goshen Twp	**Site/Location**	Sewage Treatment Plant
Instrument Description	Paperless Chart Recorder	**Primary type**	Magmeter
Manufacturer	Endress Hauser	**Secondary type**	N/A
Serial Number	822587	**Primary size**	18
Instrument Accuracy % FS	0.20%	**Special Units**	MGD
Customer Equipment/ID#	**Equalized Flow**	**Instrument ID#**	Influent flow
Calibrated Range In E.U.	0 to 12 MGD	**Totalizer x1000**	
Pre-Calibration Status	In Tolerance	**Frequency HZ**	
Completed Status	In Tolerance		
Procedure Used	Per Manufactures Procedure		
Date Of Last Calibration	September 30, 2019		
Date Calibrated	April 6, 2020		
Date Due	July-20		
Temperature	55		
Relative Humidity	55%		
Technician	George Buchser		

Standards Used

Manufacturer	Model	Serial	Cal Date	Due date
Fluke	787	7701022	Feb 22 2020	Feb 22,2021

Standard Value MA Input	Expected Display MGD	Display/Chart As Found	% Error As Found	Display/Chart As Left	% Error As Left
4.0	0.00	0.00	0.000%	0.00	0.000%
8.0	3.00	2.99	-0.083%	3.00	0.000%
12.0	6.00	5.99	-0.083%	6.00	0.000%
20.0	12.00	11.99	-0.083%	12.00	0.000%

Totalizer x1 =mgals MA INPUT	Expected Counts	Measured CNTS As Found	TIME As Found	Measured CNTS As Left	TIME As Left
5.92	1 min = 1	1	;59;95	1	1;00;00
11.68	1 MIN = 4	4	59.98	4	1.00.02
19.36	1 MIN = 8	8	;59;92	8	59.99

It is hereby certified that the equipment above has been calibrated to manufacturer's specifications in compliance with MIL-STD-45662A, ISO 10012-1, and/or customer contractual requirements. The standards used to calibrate this equipment are traceable to the National Institute Of Standarrds And Technology (NIST).

Complete records of all work performed are maintained by Allied Control Services, Inc. and are available upon request.

George Buchser
Technician

ALLIED CONTROL SERVICES, INC.
P.O. Box 234
611 Garfield Avenue
West Point, PA 19486
(215) 699-2855

Certificate Of Calibration

Certificate #	2-101320	**Meter information**	Toshiba
Customer	West Goshen Twp	**Site/Location**	Sewage Treatment Plant
Instrument Description	Paperless Chart Recorder	**Primary type**	Magmeter
Manufacturer	Endress Hauser	**Secondary type**	N/A
Serial Number	822587	**Primary size**	18
Instrument Accuracy % FS	0.20%	**Special Units**	MGD
Customer Equipment/ID#	**Equalized Flow**	**Instrument ID#**	Influent flow
Calibrated Range In E.U.	0 to 12 MGD	**Totalizer x1000**	
Pre-Calibration Status	In Tolerance	**Frequency HZ**	
Completed Status	In Tolerance		
Procedure Used	Per Manufactures Procedure		
Date Of Last Calibration	April 6, 2020		
Date Calibrated	October 13, 2020		
Date Due	January-21		
Temperature	55		
Relative Humidity	55%		
Technician	George Buchser		

Standards Used

Manufacturer	Model	Serial	Cal Date	Due date
Fluke	787	7701022	Feb 22 2020	Feb 22,2021

Standard Value MA Input	Expected Display MGD	Display/Chart As Found	% Error As Found	Display/Chart As Left	% Error As Left
4.0	0.00	0.00	0.000%	0.00	0.000%
8.0	3.00	2.99	-0.083%	3.00	0.000%
12.0	6.00	5.99	-0.083%	6.00	0.000%
20.0	12.00	11.99	-0.083%	12.00	0.000%

Totalizer x1 =mgals MA INPUT	Expected Counts	Measured CNTS As Found	TIME As Found	Measured CNTS As Left	TIME As Left
5.92	1 min = 1	1	;59;95	1	1;00;00
11.68	1 MIN = 4	4	59.98	4	1.00.02
19.36	1 MIN = 8	8	;59;92	8	59.99

It is hereby certified that the equipment above has been calibrated to manufacturer's specifications in compliance with MIL-STD-45662A, ISO 10012-1, and/or customer contractual requirements. The standards used to calibrate this equipment are traceable to the National Institute Of Standarrds And Technology (NIST).

Complete records of all work performed are maintained by Allied Control Services, Inc. and are available upon request.

George Buchser
Technician

Attachment No. 9

Contributing Municipality Reports

101 Commerce Drive
Exton, Pennsylvania 19341

West Whiteland
TOWNSHIP

Tel: (610) 363-9525
www.westwhiteland.org

March 9, 2021

Mr. Matthew Froncillo
West Goshen Township
1025 Paoli Pike
West Chester, PA 19380

RE: West Whiteland Township
2020 Chapter 94 Report

Dear Mr. Froncillo:

In response to your recent request, we are submitting the following information to add to your 2020 Municipal Waste Load Management (Chapter 94) Report for the West Goshen Sewer Authority.

1. Estimated EDUs Connected

The following EDU's were added in 2020 to the portion of West Whiteland Township's (WWT) sewage collection system that is served by West Goshen Sewer Authority.

EDUs Connected Prior to 2020	EDUs Connected in 2020		Total EDUs
Residential	Residential	Commercial	Total
2,681	5	0	2,686

*Does not include EDUs which have paid Tapping Fees but did not connect in 2020

Based on 2020 year-end average daily flow of 0.635 MGD, the estimated EDU flow value for the portion of the Township that is connected to West Goshen Wastewater Treatment Plant is 237 gallons per day (gpd) per EDU. Rainfall for the year, measured within the Township, was 54.22 inches; the historical average rainfall for WWT is 54.1 inches.

There are no industrial waste users in West Whiteland's service area draining to West Goshen.

2. Projected Hydraulic Loading

The projected increases to the average daily hydraulic loading are based on the following considerations:

- West Whiteland Township continues its ongoing efforts to reduce infiltration/inflow (I/I).
- The 2020 Daily Average Flow from West Whiteland to West Goshen was 0.635 MGD.

- The attached Exhibit - EDU/GPD ESTIMATES WEST GOSHEN shows current development activity and provides a breakdown of expected connections for the next five (5) years. Using the Exhibit, the following projections were estimated; please note that these projections are subject to change as they are dependent on planned development activity.

	2020 Actual	2021	2022	2023	2024	2025
Project Additional Flow		464	1,740	5,336	8,816	4,060
Project Additional EDU's*		2	7.5	23	38	17.5
Projected Flow to West Goshen System	635,259	635,823	637,563	642,899	651,715	655,775
Projected Total EDU's *	2,686	2,688	2,695.5	2,718.5	2,756.5	2,774

*(based on 232 g.p.d./EDU)

3. System Overload

There are no known areas within the sub-basin that are near or over capacity.

There were two sanitary sewer overflow (SSO) events in the West Whiteland Township sewer collection system in 2020 as follows:

1. March 4, 2020 – while clearing a sewer line, the blocked line leaked water through a joint and bubbled to the ground surface near 600 Whitford Hills Road. (DARA drainage basin)
2. August 4, 2020 – a storm occurred totaling 6.5+ inches of rain in a few hours causing an SSO at the Clover Mill Pump Station. (DARA drainage basin)

All events were monitored by Township Staff and were immediately reported to PaDEP upon their discovery. The SSO reports are enclosed.

4. Sewer Extensions

The following sewer extension was completed in 2020:

1. Brandolini Development, Carver Way
    a. 7 new homes: 7 EDUs
    b. Projected flows: 1,624 g.p.d.
    c. This sewer extension consists of 1,106 feet of 8" PVC pipes and 8 manholes.

5. Sewer System Monitoring and Maintenance

West Whiteland Township continued ongoing I/I remediation work in 2020. The following is a summary of work that was completed in West Whiteland Township (i.e. Township wide) throughout the year:

1. All pumping stations were checked daily throughout the year, and all normal maintenance was performed.

2. All repairs at pumping stations were done immediately or as soon as parts and materials could be obtained.

3. Quarterly, the sewage flow meters at the pumping stations, meter pits were calibrated. The calibration reports are attached.

4. Manholes were raised when necessary. Repairs were done in manholes when problems were located, to stop infiltration and inflow.

5. The sewer rights-of-way were mowed in accessible areas.

6. Plugging, weiring, cleaning, and TV inspections continued in 2020 to locate and eliminate sources of infiltration.

    - Approximately 27,100 feet of pipe were televised Township-wide to locate sources of infiltration and inflow.

    - Approximately 115,580 feet of pipe were cleaned.

    - Known areas of grease and debris buildup were cleaned as needed throughout the year.

    - Approximately 6,535 feet of sewer piping were root cut to prevent intrusion in the line.

    - Sixty-eight (68) manhole inserts were installed throughout the collection system to prevent surface inflow into manholes. Eighteen (18) manholes were repaired.

6. Problems Within the Collection System

The sanitary sewer system, which was constructed in 1974, is in very good condition and there are no service areas is the system that are close to exceeding capacity. The original pipe material that was used was vitrified clay pipe or asbestos-cement pipe. Any portions of the system that were built after 1980 were constructed using poly-vinyl chloride (PVD) pipe.

7. Condition of Sewage Pumping Stations

Grubbs Mill Pumping Station

GRUBBS MILL PUMPING STATION DATA	
Number of Pumps	2
Pump Variety	Vertical Centrifugal
Rated Capacity (Single Pump)	1,163 gpm (1.675 mgd)
Maximum Station Capacity (Both Pumps)	2,100 gpm (3.024 mgd)

The Grubbs Mill Pumping Station is a duplex facility constructed in 1986. The facility is monitored daily and kept in good operating order. Routine maintenance and repairs are performed at regular intervals.

Neither peak hourly nor instantaneous flow readings are measured at the pumping station. The maximum daily flow for the year of 2020 was 1.01 MGD.

Mill Valley Pumping Station

MILL VALLEY PUMPING STATION DATA	
Number of Pumps	2
Pump Variety	Flygt Submersible
Rated Capacity (Single Pump)	36 gpm (.05184 mgd)
Maximum Station Capacity (Both Pumps)	64 gpm (.09216 mgd) (Estimated)

Originally constructed in 2000, this pumping station serves the Mill Valley Development, which is located in the southeastern portion of West Whiteland Township. This pumping station is monitored daily and is kept in good operating order. Routine maintenance and repairs are performed at regular intervals.

Instantaneous or peak flows are not recorded at this pumping station. Neither the maximum nor average daily flows for the year were recorded because it is not metered. The average annual flow is not expected to increase in this service area due to the fact that there are no future connections anticipated.

Route 100 Pumping Station

ROUTE 100 PUMPING STATION DATA	
Number of Pumps	2
Pump Variety	Vertical Centrifugal
Rated Capacity (Single Pump)	570 gpm (.8208 mgd)
Maximum Station Capacity (Both Pumps)	1,026 gpm (1.478 mgd) (Estimated)

This pumping station transfers flow from the central part of West Whiteland Township, south of the Route 30 Bypass. All flow is transferred to the Grubbs Mill Pumping Station, which sends the flow to West Goshen Township. This pumping station is monitored daily and is kept in good operating condition. Routine maintenance and repairs are performed at regular intervals.

A rehabilitation project was completed in 2020 which included a new generator and automatic transfer switch as well as the installation of a hydraulic grinder, new pump motor control system, surge relief valve, fire alarm system, lighting replacement, and replacement of the exterior door for the generator room.

The maximum daily flow for the year 2020 was 0.20 MGD. (This is included in the flows at Grubbs Mill Pump Station.)

Whiteland Woods Pumping Station

WHITELAND WOODS PUMPING STATION DATA	
Number of Pumps	2
Pump Variety	Flygt Submersible
Rated Capacity (Single Pump)	350 gpm (.504 mgd)
Maximum Station Capacity (Both Pumps)	630 gpm (.907 mgd)

This pumping station was originally constructed in 2001. The pumping station transports all flow from Whiteland Woods development to the Route 100 Pumping Station. The flow is then transferred to the Grubbs Mill Pumping Station, which sends the flow to West Goshen Township. This pumping station is monitored daily and is kept in good operating condition. Routine maintenance and repairs are performed at regular intervals.

The maximum flow for the year 2020 was recorded to be 0.08 MGD. (This is included in the flows at Route 100 Pump Station and Grubbs Mill Pump Station.)

8. Final Wasteload Management Report

West Whiteland Township respectfully requests that it be provided with one copy of the final Wasteload Management Report.

I trust this information will be helpful to you. Please feel free to contact me with any questions or comments.

Sincerely,

Theodore D. Otteni, P.E.
Director of Public Works

Enclosures:

- Municipal Flow Projection (GPD ESTIMATES – WEST GOSHEN)
- Meter Certifications
- Monthly Inspection, I&I Detection, and Repairs
- SSO Reports

Cc: Michael Moffa, West Goshen

GPD ESTIMATES
WEST GOSHEN PLANT

RESIDENTIAL					As of 12/31/20			Flow to be Connected					
DEVELOPMENT NAME	Status	# Units	Estimated gal/day/unit	Projected Flows (gpd)	Connected Units	Connected Flow (gpd)	Flow Remaining to be Connected (gpd)	2021	2022	2023	2024	2025	2026+ Planning Only
GUN CLUB (East Boot Road)	E	20	232	4,640		0	4,640						4,640
HILLTOP (1387 Copeland Rd.)	B,C	6	232	1,392		0	1,392			696	696		
J.B. BRANDOLINI (Carver Way)	D	7	232	1,624	5	1,160	464	464					
MACINTYRE (1470 Pottstown Pike)	D	8	232	1,856		0	1,856					1,856	
MISC.		20	232	4,640		0	4,640		1,160	1,160	1,160	1,160	
SIMON (HARRY) ESTATE	C,D	8	232	1,856		0	1,856			928	928		
SUNSHINE MANAGEMENT	C,D,B	7	232	1,624		0	1,624			812	812		
SUB-TOTAL - GPD		**76**		**17,632**		**1,160**	**16,472**	**464**	**1,160**	**3,596**	**3,596**	**3,016**	**4,640**

A - Under Construction
B - Preliminary Plan Approval
C - Planning Module Approved
D - Plans under review with Township
E - No plans currently under review
F - Project completed

NON-RESIDENTIAL					As of 12/31/20			Flow to be Connected					
DEVELOPMENT NAME	Status	# Units	Estimated gal/day/unit	Projected Flows (gpd)	Connected Units	Connected Flow (gpd)	Flow Remaining to be Connected (gpd)	2021	2022	2023	2024	2025	2026+ Planning Only
HELPER BROTHERS (BALDINO'S)	E	5	232	1,160		0	1,160			1,160			
JANIEC BUILDERS	E	20	232	4,640		0	4,640				4,640		
MISC.		10	232	2,320		0	2,320		580	580	580	580	
STRATTON	D	2	232	464		0	464					464	
SUB-TOTAL - GPD		**37**		**8,584**		**0**	**8,584**	**0**	**580**	**1,740**	**5,220**	**1,044**	**0**
W GOSHEN GRAND GPD		**113**		**26,216**		**1,160**	**25,056**	**464**	**1,740**	**5,336**	**8,816**	**4,060**	**4,640**

Controlex
Service
Corporation

P.O. BOX 351
POTTSTOWN, PA 19464
484-467-7939
controlexservice@gmail.com

Instrumentation and Control Systems

METER CERTIFICATION

Customer Billing Address:

West Whiteland Township
101 Commerce Drive
Exton, PA 19341

Meter Location:

Grubbs Mill Pump Station

Scope of Work:

Calibration of one (1) Endress Hauser FMU 90 Ultrasonic two (2) heads, two flumes. Sensor # 1 zero at 18.65", max level 6.66. Sensor #2 zero at 25.87", max level 13.87. Also one (1) Honeywell DR45AT Recorder, 7 day. Two input (1) 0 – 400 (2) 0 - 2100

Meter Manufacturer and Model No:

Endress Hauser FMU 90
Honeywell DR45AT Recorder

Meter Serial Number:

SN# L800D1150E6 Endress Hauser
Honeywell – 0705Y77326710001

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Date: March 12, 2020

Joseph J. Kaminski, Jr

Joseph J. Kaminski, Jr.

Controlex Service Corporation

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Honeywell DR45AT Recorder

Meter Serial Number:

SN# L800D1150E6 Endress Hauser
Honeywell – 0705Y77326710001

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Joseph J. Kaminski, Jr

Joseph J. Kaminski, Jr.

Date: June 29, 2020

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Honeywell DR45AT Recorder

Meter Serial Number:

SN# L800D1150E6 Endress Hauser
Honeywell – 0705Y77326710001

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Date: October 20, 2020

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Joseph J. Kaminski, Jr.

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Honeywell DR45AT Recorder

Meter Serial Number:

SN# L800D1150E6 Endress Hauser
Honeywell – 0705Y77326710001

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Date: December 30, 2020

Joseph J. Kaminski, Jr

Joseph J. Kaminski, Jr.

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Instrumentation and Control Systems

METER CERTIFICATION

Customer Billing Address:

West Whiteland Township
101 Commerce Drive
Exton, PA 19341

Meter Location:

Rte 100 – Meter 2

Scope of Work:

Calibration of one (1) Eastech Flow Controls Vantage 2200 Ultrasonic Flow Meter used on an 8 " badger flume. Also One (1) Honeywell Recorder Model AR15BDN2020, one (1) Fisher & Porter Recorder and one (1) Milltronics Hydroranger 200.

Meter Manufacturer and Model No:

Eastech Flow Controls Vantage 2200
Milltronics Hydroranger 200
Honeywell Recorder
Fisher & Porter Recorder

Meter Serial Number:

Milltronics Hydroranger - 090403115VU
Fisher & Porter Recorder - 8801A028751
Badger Eastech Vantage 2210 - 11949
Honeywell Recorder - ar15bdn2020

Equipment used in Certification:

Transmation Generator 4 – 20 ma, Stick Ruler, ISCO Standards Book

Service Technician:

Date: March 12, 2020

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Joseph J. Kaminski, Jr.

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Honeywell Recorder - ar15bdn2020

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Service Technician:

Date: June 29, 2020

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Honeywell Recorder
Fisher & Porter Recorder

Meter Serial Number:

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Fisher & Porter Recorder - 8801A028751
Badger Eastech Vantage 2210 - 11949
Honeywell Recorder - ar15bdn2020

Equipment used in Certification:

Transmation Generator 4 – 20 ma, Stick Ruler, ISCO Standards Book

Service Technician:

Date: October 20, 2020

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Honeywell Recorder
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Badger Eastech Vantage 2210 - 11949
Honeywell Recorder - ar15bdn2020

Equipment used in Certification:

Transmation Generator 4 – 20 ma, Stick Ruler, ISCO Standards Book

Service Technician:

Joseph J. Kaminski, Jr

Joseph J. Kaminski, Jr.

Date: December 30, 2020

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Instrumentation and Control Systems

METER CERTIFICATION

Customer Billing Address:

West Whiteland Township
101 Commerce Drive
Exton, PA 19341

Meter Location:

Whiteland Woods
Pumping Station

Scope of Work:

Calibration of one (1) Endress Hauser Pro Mag 50 range 0-320 6pm used on a 4 inch pipe. Also one (1) Recorder Honeywell DR4500, 7 Day, 0 – 320 gpm, Trueline

Meter Manufacturer and Model No:

Endress Hauser Pro Mag 50
Honeywell DR4500, 7 Day Trueline

Meter Serial Number:

SN# 5C08C716000
Honeywell DR4500 – 9845V839003800002

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Joseph J. Kaminski, Jr

Joseph J. Kaminski, Jr.

Date: March 12, 2020

Controlex Service Corporation

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Honeywell DR4500, 7 Day Trueline

Meter Serial Number:

SN# 5C08C716000
Honeywell DR4500 – 9845V839003800002

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Date: June 29, 2020

Joseph J. Kaminski, Jr

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Honeywell DR4500, 7 Day Trueline

Meter Serial Number:

SN# 5C08C716000
Honeywell DR4500 – 9845V839003800002

Equipment used in Certification:

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Service Technician:

Date: October 20, 2020

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Meter Serial Number:

SN# 5C08C716000
Honeywell DR4500 – 9845V839003800002

Equipment used in Certification:

Transmation 4-20 ma Generator, Ball Plugs for Zero, ISCO Standards Book

Service Technician:

Date: December 30, 2020

Joseph J. Kaminski, Jr

Joseph J. Kaminski, Jr.

2020 Monthly Inspection, I & I Detection, and Repairs									
	Sewer Lines Televised (l.f.)	**Sewer Line Cleaned (l.f.)**	**Sewer Lines Plugged / Weired (l.f.)**	**Sewer Lines Root Cut (l.f.)**	**I & I Found g.p.d.**	**I & I Repaired g.p.d.**	**Manhole Inserts Placed**	**Manholes Repaired**	**Sewer Lines Treated for Roots (l.f.)**
January	920	1418	0	0	0	0	4	1	0
February	3079.2	3079.2	0	0	0	0	3	0	0
March	1594.1	1594.1	0	213.4	0	0	2	2	0
April	0	200	0	0	0	0	30	0	0
May	5656.2	5656.2	0	1685	0	0	6	0	0
June	7165	7165	0	2217.9	0	0	4	3	0
July	1681.8	2650.7	0	1308.1	0	0	7	1	0
August	1111	1111	0	1111	0	0	3	5	0
September	0	5170	0	0	5760	0	0	0	0
October	4580.7	2231.2	0	0	0	6	0	4	0
November	1308.9	82932	0	0	0	0	2	1	0
December	0	2375	0	0	0	0	7	1	0
TOTALS:	**27096.9**	**115582.4**	**0**	**6535.4**	**5760**	**6**	**68**	**18**	**0**
Notes:									
March-May	Activity shut down due to COVID 19								
June	First month back from shutdown								
December	TV Trailer in for repairs								

3800-FM-BCW0440 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). **Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.** If you are reporting other non-compliance events, and the reporting deadline does not coincide with your submission of the DMR, it should be submitted separately to the Department by the reporting deadline set forth in the permit. See instructions for more information.

Facility Name: West Whiteland Township Month: March Year: 2020

Municipality: West Whiteland Township County: Chester Permit No.: 1571411

☐ **Violations of Permit Effluent Limitations***

Date	Parameter	Permit Limit	Units	Statistical Code	Result	Units	Cause of Violation	Corrective Action Taken

☒ **Sanitary Sewer Overflows and Other Unauthorized Discharges***

Event Date	Substance Discharged	Location	Volume (gals)	Duration (hrs)	Receiving Waters	Impact on Waters	Cause of Discharge	Date DEP Notified
3/4/20	Sewage	600 Whitford Hills Rd	~200 - 400 gals	10 min	Colebrook Creek	Sewage Disposition	Open joint in mechanically plugged sewer line	3/4/20

☐ **Other Permit Violations***

- ☐ Sample collection less frequent than required — Explain
- ☐ Sample type not in compliance with permit — Explain
- ☐ Violation of permit schedule — Explain
- ☐ Other — Explain
- ☐ Other — Explain

***If the space provided is not sufficient to record all information, please attach additional sheets.**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Theodore D. Otteni, P.E. Signature:

Title: Director of Public Works Date: March 6, 2020

Sanitary Sewer Overflow (SSO) Report to PADEP- Water Management

DEP fax: 484-250-5971

Please check the appropriate box [X] Dry Weather Overflow [ ] Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date : March 4, 2020 Name : Ken Watton Phone # : 610-636-3342
2. Your organization name and address ?	Municipality: West Whiteland Township County: Chester Address: 101Commerce Drive Exton, PA 19341
Sewer system owner and permit number	West Whiteland Township Permit No. 1571411
3. Date found and specific location of SSO, Including Municipality/County (if different from #2) ?	Date: March 4, 2020 Municipality: West Whiteland Township Location(Street & #): 600 Whitford Hills Rd County: Chester
4. How was SSO discovered? By whom ?	Discovered while working, cleaning a sewer line Discovered by Hector Fierro
5. Start and end time of SSO (actual or estimate?)	Start: 11:45am End: 11:55am about 10 minutes
6. Date, time and name of person who called PADEP originally to notify of SSO ?	Date : March 4, 2020 Time : 12:50pm Name : Mike Currie
7. Description and actual or estimated volume of SSO	While cleaning a sewer line, the plugged line leaked water through a joint and bubbled to ground surface Estimated 200-400 gallons
8. Where, precisely, did SSO go ? (land, roadway, basement, swale, storm sewer, creek, etc) Please include creek name or street location.	SSO was mostly contained to grass area with only a small amount finding its way to Colebrook Creek 600 Whitford Hills Road
9. What caused SSO ? How was it stopped ?	Caused by an open joint in a mechanically plugged sewer line Stopped by removing plug
10. Describe extent of contamination and how it was cleaned up	Water filtered up through the ground with a small amount of water going into Colebrook Creek There was no visible evidence of overflow
11. What actions will be taken to prevent a re-occurrence ? When ?	Sewer line will be grouted and a 2' x 2' CIAP patch will be installed over joint this year
12. Other comments ?	West Whiteland Township will continue with its aggressive I&I Program
13.Downstream notifications made: (All downstream users such as public water supplies must be notified)	PA DEP; Ingrams Mill; Brandywine Filter Plant; Porter Filter Plant; DRWPCC, all notified before 2pm

3800-FM-BCW0440 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). **Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.** If you are reporting other non-compliance events, and the reporting deadline does not coincide with your submission of the DMR, it should be submitted separately to the Department by the reporting deadline set forth in the permit. See instructions for more information.

Facility Name: West Whiteland Township Month: August Year: 2020

Municipality: West Whiteland Township County: Chester Permit No.: 1571411

☐ **Violations of Permit Effluent Limitations***

Date	Parameter	Permit Limit	Units	Statistical Code	Result	Units	Cause of Violation	Corrective Action Taken

☒ **Sanitary Sewer Overflows and Other Unauthorized Discharges***

Event Date	Substance Discharged	Location	Volume (gals)	Duration (hrs)	Receiving Waters	Impact on Waters	Cause of Discharge	Date DEP Notified
8/4/20	Sewage	652 Clover Mill Road	~1MGD	~5hrs	Valley Creek	Sewage Disposition	Extreme Rainfall and Flooding Pump Station Shut Down	8/4/20

☐ **Other Permit Violations***

- ☐ Sample collection less frequent than required Explain
- ☐ Sample type not in compliance with permit Explain
- ☐ Violation of permit schedule Explain
- ☐ Other Explain
- ☐ Other Explain

***If the space provided is not sufficient to record all information, please attach additional sheets.**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Theodore D. Otteni, P.E. Signature:

Title: Director of Public Works Date: 8/7/20

Sanitary Sewer Overflow (SSO) Report to PADEP- Water Management **DEP fax: 484-250-5971**

Please check the appropriate box ☐ Dry Weather Overflow ☒ Wet Weather Overflow

1. Date, Name, Phone # of person completing this report	Date : 08/07/2020 Name : Michael Currie Phone # : 215-416-6041
2. Your organization name and address ?	Municipality: West Whiteland Township Address: 101 Commerce Dr County: Chester Exton, PA 19341
Sewer system owner and permit number	West Whiteland Township Permit # 1571411
3. Date found and specific location of SSO. Including Municipality/County (if different from #2) ?	Date: 08/04/2020 Municpality: West Whiteland Township Location(Street & #): 652 Clover Mill Rd County: Chester
4. How was SSO discovered? By whom ?	Pump station was being monitored by the Township Collection System staff. Pump station was not able to keep up with amount of rain water from hurricane Isaias.
5. Start and end time of SSO (actual or estimate?)	Estimated Start: 08/04/2020 at 12:00pm Estimated Stop: 08/04/2020 at 5:00pm
6. Date, time and name of person who called PADEP originally to notify of SSO ?	Date : 08/04/2020 Time : 5:00pm Name : Michael Currie
7. Description and actual or estimated volume of SSO	Estimated Volume: 1MGD
8. Where, precisely, did SSO go ? (land, roadway, basement, swale, storm sewer, creek, etc) Please include creek name or street location.	SSO travelled from a swale through a storm pipe and into Valley Creek.
9. What caused SSO ? How was it stopped ?	SSO caused by extreme rainfall from hurricane Isais. (5.5" if rain in short time) Pump station had to be shut down due for safety due to extreme flooding SSO stopped when rain ceased, waters subsided, and the pump station could catch up.
10. Describe extent of contamination and how it was cleaned up	Sewage ran out of the pump station into a swale, through a storm pipe, and into Valley Creek. Lime was applied to the grass, and the area was cleaned up.
11. What actions will be taken to prevent a re-occurrence ? When ?	Township is conducting an I&I study, and there are pump station upgrades, engineering is already underway. Township is constantly improving our system.
12. Other comments ?	The Township had already begun the process of detecting and eliminating I&I, using an outside sewer engineer. Township also works with other contractors to repair sewer issues.
13.Downstream notifications made: (All downstream users such as public water supplies must be notified)	PA DEP, Ingrams Mill, Brandywine Filter Plant, Porter Filter Plant, DRWPCC, Chester County Health Department

610-692-7171
www.eastgoshen.org

BOARD OF SUPERVISORS

EAST GOSHEN TOWNSHIP
CHESTER COUNTY
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

March 6, 2021

Michael Moffa
West Goshen Township
848 S. Concord Road
West Chester, PA 19382

RE: East Goshen Township Wastewater Contributions
West Goshen Sewer Authority, Chapter 94, Municipal Waste load Mgt. Report 2020

Dear Mr. Moffa:

Following is the information that you requested regarding the above mentioned report.

FLOW DATA

1. a. Each station has capacity at this time.

   Ashbridge Pump Station daily flows - 53,181
   Barkway Lane Pump Station daily flows - 9,546

   b. Maximum Chester Creek flows are approximately 717,181 gal. Per day.

   c. Average flows, past and projected, are as follows:

2019	817,637
2020	717,188
2021	728,000
2022	735,000

INDUSTRIAL WASTE USERS (please do not omit)

1. We do not have a list of industrial waste user(s) on the collection system. All information can be found in West Goshen's data.

2. We amended the sewer rates annualy.

INFLOW & INFILTRATION

We cleaned and televised the following streets:

Goshen Parkway, replaced all castings and lids, cleaned and televised
Boot Road from Greenhill/Wilson, cleaned and televised
Enterprise Drive, new castings and lids, cleaned and televised
Alcott Circle, new castings and lids, cleaned and televised
Dickens Drive, new castings and lids, cleaned and televised
Killern Lane, cleaned and televised
Culbertson Circle, new castings and lids, cleaned and televised
Eastwick Circle, new castings and lids, cleaned and televised
Amstel Way, cleaned and televised
Tulip Drive, televised and cleaned
Barkway Lane, televised and cleaned
Misak Drive, televised and cleaned
Williams Way, televised and cleaned
Margo Lane, televised and cleaned
Wilson Drive, televised and cleaned
Katherine Lane, televised and cleaned
Mark Drive, televised and cleaned
Baldwin Drive, televised and cleaned
Margaret Lane, televised and cleaned
Highland Ave., new castings and lids, cleaned and televised
Taylor Ave., new castings and lids, cleaned and televised
Cooper Circle, cleaned and televised
Dutts Mill Townhomes, televised and cleaned
Christine Lane – thru Pheasant Run to P/S, cleaned and televised

Edith Road, cleaned and televised
Still Road, cleaned and televised

East Goshen Township continues to monitor flows with portable meters, we have done an extensive INI investigation.

Continue to conduct rehabilitation of sewers, manholes, and laterals as determined by ongoing investigations, including repair of leaks and replacement of cleanout caps and cleanout pipes that have pulled out of lateral piping.

Continued to replace cleanout caps at no charge to property owners in the Chester Creek Service Areas upon request by property owners or observation by Public Works or Codes Department staff.

Continued to repair defective laterals and cleanouts for property owners to ensure that the work is done properly as indicated in rehabilitation.

Re-occupancy inspections were performed at the sale of residences and commercial establishments throughout the Township looking for direct inflow from building sump pumps.

Repair of defective laterals and cleanouts by the Township for property owners to ensure that the work is done properly.

In May we cleared a blockage on Margo Lane.

In June we installed cast iron lateral covers in the Steeple Chase Development.

In July we cleared a blockage on Linden Lane.

In August we replaced 8 lateral caps on the Chester Creek line.

Sincerely

Mark S. Miller

Mark S. Miller
Director of Public Works
East Goshen Township

MUNICIPAL WASTELOAD MANAGEMENT REPORT
WESTTOWN TOWNSHIP
WEST GOSHEN SEWER AUTHORITY
SERVICE AREAS
ANNUAL REPORT
CALENDAR YEAR 2020

MARCH 2021

PREPARED FOR:

WESTTOWN TOWNSHIP
1039 WILMINGTON PIKE
WEST CHESTER, PA 19382

JON ALTSHUL, TOWNSHIP MANAGER

PREPARED BY:

CARROLL ENGINEERING CORPORATION
949 EASTON ROAD
WARRINGTON, PA 18976

WILLIAM N. MALIN, P.E., VICE PRESIDENT

TABLE OF CONTENTS

SECTION 1
INTRODUCTION

Pursuant to Pennsylvania Chapter 94 Municipal Wasteload Management regulations and requirements, Westtown Township has prepared this 2020 Municipal Wasteload Management Annual Report for the West Goshen Sewer Authority (WGSA) service area.

The West Goshen Sewer Authority service area covers the central one-third of the Township generally between the West Chester Railroad to the east and Wilmington Pike (SR 202) to the west. In addition, there is a small portion in the eastern end of the Township bounded by Manley Road, Chester Road (SR 352) and West Chester Pike (SR 3) and known as the Triangle, where wastewater is conveyed through East Goshen Township to WGSA for treatment. Service is also provided to Commons of Thornbury Shopping Center located in Thornbury Township at Wilmington Pike and Street Road (SR 926). The West Goshen Sewer Authority service area is shown on the Wastewater Facilities Plan.

The West Goshen Sewer Authority service area includes approximately 15 miles of 8" and 10" diameter sewer including approximately 1,000 feet of sewers in the Triangle; and 2,000 feet of pressure sewers. There are also four sewage pump stations in the WGSA service area, Pleasant Grove, Wild Goose, Cobblefield and Arborview. Wastewater from Thornbury Township is conveyed to WGSA via the Pleasant Grove Pump Station.

Wastewater from the WGSA service area enters West Goshen Township at six locations identified on the Wastewater Facilities Plan:

- The Triangle connects to East Goshen Township at the intersection of Chester Road and Manley Road. Flows are conveyed through East Goshen Township to WGSA. Flows are unmetered. Flow is estimated based on water usage records obtained from AQUA Pennsylvania.

- The Marker Drive meter pit is located on Little Shiloh Road, 300' west of Marker Drive.

- The Thorne Drive meter pit is located on Thorne Drive near the intersection of Little Shiloh Road.

- Wastewater from the Pleasant Grove and Wild Goose Pump Stations discharges to a gravity sewer in South Concord Road 900' south of Little Shiloh Road. In addition to the flow from the two pump stations, there are two residential properties (901 & 903 South Concord Road) that connect to this sewer.

- The Coventry Village meter pit is located near Coventry Lane and the West Chester Railroad.

- Wastewater from District I is unmetered and connects to WGSA at two locations, Wilmington Pike just north of Stanton Avenue, and north of Larchwood Road.

SECTION 2
HYDRAULIC LOADING

The Westtown Township owns 530,000 gallons per day (GPD) in WGSA's treatment plant. During 2020, Westtown conveyed a monthly average daily flow of 242,197 GPD to WGSA including flow from Thornbury Township. Thornbury Township flows are deducted by WGSA to calculate net flows for Westtown. Currently, Westtown is using 45.7% of their allocated capacity including the Thornbury Township flow. Flows for each of the connections to WGSA are summarized in Table No. 1.

In 2020, 6 EDUs were connected. Flows are projected to increase by 20 EDUs totaling 5,000 GPD in the next 5-years.

SECTION 3
CONDITION OF THE SEWER SYSTEM

In 2016, Westtown began a Capital Improvement Program (CIP). The goal of the CIP is to evaluate the condition of the sewer system, pump stations and meter pits to determine if repairs are needed and to establish funds for longer term maintenance and renewal of the system. The last phase of the sewer televising was completed in 2018. Sewer defects have been identified and cataloged to prioritize sewer system repairs.

SECTION 4
SEWAGE PUMPING STATIONS

There are four pump stations in the WGSA service area. Three pump stations, Pleasant Grove, Wild Goose and Arborview are equipped with flow meters. The fourth pump station, Cobblefield is unmetered. Pleasant Grove Pump Station flows include flow from the Arborview Pump Station. Cobblefield Pump Station is in the Marker Drive drainage area and pump station flows are included in the Marker Drive meter flows.

Pump station flows are summarized as follows:

1. PLEASANT GROVE PUMP STATION:

Design Capacity:	650,000 GPD
Current Maximum Monthly Flow:	278,513 GPD
Projected 2-year Maximum Flow:	278,513 GPD

2. WILD GOOSE PUMP STATION:

Design Capacity:	35,000 GPD
Current Maximum Monthly Flow:	12,310 GPD
Projected 2-year Maximum Flow:	12,310 GPD

3. ARBORVIEW PUMP STATION:

Design Capacity:	31,680GPD
Current Maximum Monthly Flow:	5,230 GPD
Projected 2-year Maximum Flow:	5,230 GPD

4. COBBLEFIELD PUMP STATION:

Design Capacity:	100,800 GPD
Current Maximum Monthly Flow:	13,305 GPD (estimated)
Projected 2-year Maximum Flow:	13.305 GPD

SECTION 5
INDUSTRIAL WASTES

Currently, there are no industrial users in the WGSA service area, nor are any planned in the future. An industrial waste discharge ordinance was adopted in 2005.

Table No. 1
Westtown Township
West Goshen Sewer Authority Service Area
Monthly Flow Summary

2020 Month	Coventry Village Flow (GPD)	Marker Drive Flow (GPD)	Thorne Drive Flow (GPD)	Grove Wild Goose Flow (GPD)(3)	The Triangle Flow (GPD)(1)	901 & 903 Concord Rd. Flow (GPD)(2)	District I Flow (GPD)(4)	Total Monthly Flow (GPD)
January	25,800	14,255	3,636	169,905	2,621	700	17,633	234,550
February	25,486	11,393	3,424	170,251	2,621	700	17,633	231,508
March	36,361	18,861	3,595	171,813	2,621	700	17,633	251,584
April	41,293	19,647	3,727	191,984	1,984	700	17,633	276,968
May	30,348	18,294	3,150	175,773	1,984	700	17,633	247,881
June	24,143	18,143	2,498	156,360	1,984	700	17,633	221,460
July	24,306	18,006	2,287	154,423	7,027	700	17,633	224,382
August	27,194	18,548	4,031	152,005	7,027	700	17,633	227,139
September	27,023	22,650	4,076	146,539	7,027	700	17,633	225,648
October	31,684	19,065	4,486	163,052	2,620	700	17,633	239,239
November	30,260	16,060	5,060	166,830	2,620	700	17,633	239,163
December	38,197	19,129	4,706	203,855	2,620	700	17,633	286,839
Average	30,175	17,838	3,723	168,566	3,563	700	17,633	242,197

Notes:
(1) Based on water usage data provided by AQUA Pennsylvania.
(2) Based 2 homes at 350 gallons per day per agreement
(3) Based on pump station flow meter readings. Includes flows from Thornbury Township.
(4) Based on 77 homes @ 229 gallons per day per agreement

COVENTRY METER SERVICE AREA

DISTRICT 1 CONNECTIONS

COVENTRY METER

WEST GOSHEN TWSP WWTP

BOWERS DRIVE CONNECTION

901 & 903 SOUTH CONCORD ROAD

PLEASANT GROVE PUMP STATION
WILD GOOSE PUMP STATION DISCHARGE

THORNE DRIVE METER

MARKER DRIVE METER

WILD GOOSE PUMP STATION

COBBLEFIELD PUMP STATION

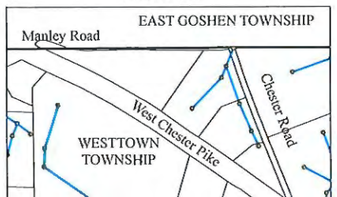
ARBORVIEW PUMP STATION

PLEASANT GROVE PUMP STATION

CHESTER CREEK WASTEWATER TREATMENT PLANT SERVICE AREA

THORNBURY TOWNSHIP CONNECTION

TRIANGLE



LEGEND

- GRAVITY SEWER
- FORCE MAIN
- MANHOLE
- DRAINAGE AREA BOUNDARY
- CONNECTIONS IN 2020
- FUTURE CONNECTIONS

GRAPHIC SCALE

0 175 350 700 1050 1800

(IN FEET)
1 inch = 350 ft.

WASTEWATER FACILITIES PLAN
WEST GOSHEN SEWER AUTHORITY
SERVICE AREA

CHAPTER 94 REPORT

SITUATED IN:
WESTTOWN TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

PREPARED FOR:
WESTTOWN TOWNSHIP
1039 WILMINGTON PIKE